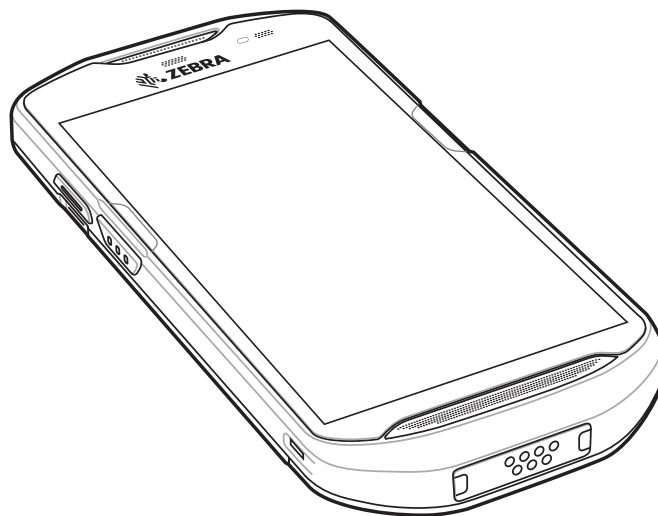


TC56

Touch Computer



ZEBRA

User Guide for Android™ 7.1.2 Nougat

Table of Contents

Copyright	2
Terms of Use	2
Revision History	2

About This Guide

Introduction	12
Documentation Set	12
Configurations	12
Software Versions	13
Chapter Descriptions	13
Notational Conventions	14
Related Documents	14
Service Information	14
Provide Documentation Feedback	15

Getting Started

Introduction	16
Unpacking	16
Features	17
Setup	19
Installing a microSD Card	19
Installing the SIM Card	22
Installing the Battery	24
Charging the Battery	25
Charging Indicators	26
Google Account Setup	26
Replacing the Battery	26
Replacing the microSD Card	28
Replacing the SIM Card	29
Accessing Device Settings	31
Battery Management	32
Monitor Battery Usage	32
Low Battery Notification	33
Battery Optimization	33
Turning Off the Radios	33
Setting the Date and Time	34

Table of Contents

Display Setting	34
Setting the Screen Brightness	34
Setting Screen Rotation	34
Setting Home Screen Rotation	35
Setting Screen Timeout Setting	35
Setting Font Size	36
Ambient Display	36
Touch Panel Mode	36
Setting Notification LED	37
Cast	37
General Sound Setting	38
Wake-Up Sources	39

Using the TC56

Introduction	41
Google Mobile Services	41
Home Screen	42
Status Bar	43
Status Icons	43
Notification Icons	45
Managing Notifications	45
Setting Application Notifications	46
Viewing Notification Settings for All Apps	47
Controlling Lock Screen Notifications	47
Quick Access Panel	47
Edit Icons on Quick Settings	48
Application Shortcuts and Widgets	49
Adding an Application to the Home Screen	49
Adding a Widget to the Home Screen	49
Moving Items on the Home Screen	49
Removing an Application Shortcut or Widget from the Home Screen	49
Folders	50
Creating a Folder	50
Naming Folders	50
Removing a Folder	50
Home Screen Wallpaper	50
Using the Touchscreen	50
Keyboards	51
Editing Text	51
Entering Numbers, Symbols and Special Characters	51
Configuring the Keyboard	52
AOSP Keyboard	52
GMS Keyboard	52
Do Not Disturb Feature	52
Limit Sounds and Vibrations	52
Total Silence	52
Alarms Only	53
Priority Notifications Only	53
Automatically Block Sounds and Vibrations	54
Silence Sounds During Certain Times	54

Table of Contents

Silence Sounds During Events and Meetings	54
Turn Sounds Back On	54
Override Do Not Disturb for Specific Apps	54
Applications	55
Accessing Applications	58
Switching Between Recent Applications	59
Un-Locking the Screen	60
Resetting the Device	64
Performing a Soft Reset	64
Performing a Hard Reset	64
Suspend Mode	65
Transferring Files with a Host Computer via USB	65
Transferring Files using Media Transfer Protocol	66
Transferring Files using Photo Transfer Protocol	66
Disconnect from the Host Computer	67
Calls	
Introduction	68
Emergency Calling	68
Audio Modes	68
Using a Bluetooth Headset	68
Using a Wired Headset	69
Adjusting Audio Volume	69
Making a Call Using the Dialer	70
Dialer Dialing Options	72
Making a Call Using Contacts	73
Using the Dialer	73
Using the Contacts Application	73
Making a Call Using Call History	75
Making a Conference Call on GSM	76
Making a Call Using a Bluetooth Headset	79
Answering Calls	80
Call Settings	81
Applications	
Introduction	83
ActiveEdge Touch Zone	83
Battery Manager	87
Device Central	90
Device Central Tabs	91
Paging an RS6000 Ring Scanner	91
File Browser	92
Messaging	94
Sending a Text Message	94
Sending a Multimedia Message	94
Contacts	96
Adding a Contact	96
Editing Contacts	96
Deleting Contacts	96

Table of Contents

Camera	97
Taking Photos	97
Taking a Panoramic Photo	98
Recording Videos	98
Photo Settings	99
Video Settings	100
Gallery	102
Working with Albums	103
Share an Album	104
Get Album Information	104
Deleting an Album	104
Working with Photos	105
Viewing and Browsing Photos	105
Cropping a Photo	105
Setting a Photo as a Contact Icon	106
Share a Photo	106
Deleting a Photo	107
Working with Videos	107
Watching Videos	107
Sharing a Video	107
Deleting a Video	107
Photos	108
Working with Albums	109
Share an Album	110
Deleting an Album	110
Working with Photos	111
Viewing and Browsing Photos	111
Cropping a Photo	111
Setting a Photo as a Contact Icon	112
Share a Photo	112
Deleting a Photo	113
Working with Videos	113
Watching Videos	113
Sharing a Video	113
Deleting a Video	113
DataWedge Demonstration	114
Sound Recorder	116
PTT Express Voice Client	117
PTT Audible Indicators	117
Notification Icons	118
Enabling PTT Communication	119
Selecting a Talk Group	119
PTT Communication	119
Creating a Group Call	120
Responding with a Private Response	120
Disabling PTT Express Voice Client Communication	120
RxLogger	121
RxLogger Utility	122
Diagnostic Tool	123
Settings	127
Battery Test Information	127

Table of Contents

GPS Test Information	128
System Test Information	128
WLAN Test Information	128
WWAN Test Information	128
Bluetooth Test Information	128
Data Capture	
Introduction	130
Imaging	130
Operational Modes	130
RS507 Hands-Free Imager	131
RS6000 Bluetooth Ring Scanner	131
DS3678 Digital Scanner	131
Scanning Considerations	132
Bar Code Scanning with Internal Imager	132
Bar Code Capture with RS6000 Bluetooth Ring Scanner	134
Bar Code Capture with RS507 Hands-Free Imager	135
Bar Code Capture with DS3678 Bluetooth Scanner	136
Pairing the RS507/RS6000 Hands-Free Imager	137
Pairing Using Near Field Communication	138
Pairing in HID Mode Using Near Field Communication	138
Pairing Using Simple Serial Interface	139
Pairing Using Bluetooth Human Interface Device	140
Pairing the DS3678 Digital Scanner	141
Pairing Using Simple Serial Interface	141
Pairing Using Bluetooth Human Interface Device	142
DataWedge	143
Enabling DataWedge	143
Disabling DataWedge	143
Wireless	
Introduction	144
Wireless Wide Area Networks	144
Sharing the Mobile Data Connection	144
USB Tethering	144
Bluetooth Tethering	145
Portable Wi-Fi Hotspot	145
Cellular Network Settings	146
Disabling Data When Roaming	146
Preferred Network Type	147
Enhanced 4G LTE Mode	147
Search for MicroCell	147
System Select	148
Editing the Access Point Name	148
Locking the SIM Card	148
Data Usage	149
Set Data Usage Warning	150
Set Data Limit	150
Wireless Local Area Networks	151

Table of Contents

Scan and Connect to a Wi-Fi Network	151
Remove a Wi-Fi Network	152
Bluetooth	153
Adaptive Frequency Hopping	153
Security	153
Bluetooth Profiles	154
Bluetooth Power States	154
Bluetooth Radio Power	155
Enabling Bluetooth	155
Disabling Bluetooth	155
Discovering Bluetooth Device(s)	155
Changing the Bluetooth Name	155
Connecting to a Bluetooth Device	156
Selecting Profiles on the Bluetooth Device	156
Unpairing a Bluetooth Device	156
Near Field Communications	157
Reading NFC Cards	157
Sharing Information Using NFC	158
Accessories	
Introduction	159
Accessories	159
1-Slot USB Charge Cradle	163
Charging the Device	163
Inserting a TC56 with Rugged Boot into Cradle	164
Battery Charging	165
Charging Temperature	165
4-Slot Charge Only Cradle with Battery Charger	166
Charging the TC56	166
Inserting a TC56 with Rugged Boot into Cradle	168
Battery Charging	168
Main Battery Charging	168
Spare Battery Charging	168
Charging Temperature	169
5-Slot Charge Only Cradle	170
Charging the TC56	170
Inserting a TC56 with Rugged Boot into Cradle	171
Battery Charging	172
Charging Temperature	172
5-Slot Ethernet Cradle	173
Charging the TC56	173
Inserting a TC56 with Rugged Boot into Cradle	174
Battery Charging	174
Charging Temperature	175
Establishing Ethernet Connection	175
LED Indicators	175
4-Slot Battery Charger	176
Charging Spare Batteries	176
Battery Charging	177
Spare Battery Charging	177

Table of Contents

Charging Temperature	177
Rugged Boot	178
Installation	178
Installing Stylus	179
Charging with Cradles	180
2.5 mm Audio Adapter	182
3.5 mm Audio Adapter	183
Rugged Charge/USB Cable	184
Connecting to TC56	184
Connecting to TC56 with Rugged Boot	185
USB Communication	186
Charging the Device	186
Disconnecting the Rugged Charge/USB Cable	187
Battery Charging	188
Main Battery Charging	188
Charging Temperature	188
Trigger Handle	189
Installing the Rugged Boot	189
Installing the Optional Lanyard	191
Inserting the Device into the Trigger Handle	192
Removing the Device from the Trigger Handle	193
Power Supply	195
Maintenance and Troubleshooting	
Introduction	196
Maintaining the TC56	196
Display Best Practices	197
Image Retention	197
Battery Safety Guidelines	197
Cleaning Instructions	198
Approved Cleanser Active Ingredients	198
Harmful Ingredients	198
Cleaning Instructions	198
Special Cleaning Notes	199
Cleaning Materials Required	199
Cleaning Frequency	199
Cleaning the TC56	199
Housing	199
Display	199
Camera and Exit Window	199
Connector Cleaning	199
Cleaning Cradle Connectors	200
Troubleshooting	201
TC56	201
Technical Specifications	
Introduction	204
TC56	204

Index

About This Guide

Introduction

This guide provides information about using the TC56 mobile computer 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 TC56 provides information for specific user needs, and includes:


- TC56 Touch Computer Quick Start Guide - describes how to get the TC56 up and running.
- TC56 Touch Computer User Guide for Android Version 7.1.2 - describes how to use the TC56.
- TC56 Touch Computer Integrator Guide for Android Version 7.1.2 - describes how to set up the TC56 and accessories.

Configurations

This guide covers the following configurations:

Configuration	Radios	Display	Memory	Data Capture Options	Operating System
TC56CJ	WLAN: 802.11 a/b/g/n/d/h/i/k/r WPAN: Bluetooth v4.1 Low Energy WWAN: HSPA+/LTE/CDMA	5.0" High Definition (1280 x 720) LCD	2 GB RAM / 16 GB Flash or 4 GB RAM / 32 GB Flash	2D imager (SE-4710) and integrated NFC	Android Open Source Project (AOSP) 7.1.2 or Google™ Mobile Services (GMS) 7.1.2.
TC56DJ	WLAN: 802.11 a/b/g/n/d/h/i/k/r WPAN: Bluetooth v4.1 Low Energy WWAN: HSPA+/LTE	5.0" High Definition (1280 x 720) LCD	2 GB RAM / 16 GB Flash or 4 GB RAM / 32 GB Flash	2D imager (SE-4710) and integrated NFC	Android Open Source Project (AOSP) 7.1.2 or Google™ Mobile Services (GMS) 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 TC56 up and running for the first time.
- [Using the TC56](#) provides information for operating the TC56.
- [Calls](#) provides instructions for making phone calls.
- [Applications](#) provides information on using applications installed on the TC56.
- [Data Capture](#) provides information for capturing bar code data using the imager.

- [Wireless](#) provides information on the various wireless options.
- [Accessories](#) provides information for using the accessories for the TC56.
- [Maintenance and Troubleshooting](#) includes instructions on cleaning and provides troubleshooting solutions for potential problems during TC56 operation.
- [Technical Specifications](#) provides the technical specifications for the TC56.

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 keyboard
 - 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

- TC56 Touch Computer Quick Start Guide, p/n MN-002859-xx.
- TC56 Touch Computer Regulatory Guide, p/n MN002860-xx.
- TC56 Touch Computer Integrator Guide for Android Version 7.1.2, p/n MN002869-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

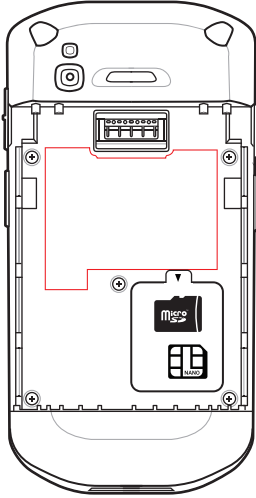
If you have a problem with the equipment, contact Customer Support in the region. Contact information is available at: www.zebra.com/support.

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)

About This Guide

- 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 TC56 and save the shipping container for later storage and shipping.
2. Verify that the following were received:
 - TC56 touch computer
 - ≥ 15.48 Watt hours (typical) / $\geq 4,150$ mAh PowerPrecision+ Lithium-ion battery
 - Regulatory Guide.
3. Inspect the equipment for damage. If any equipment is missing or damaged, contact the Global Customer Support center immediately.
4. Prior to using the TC56 for the first time, remove the protective shipping film that covers the scan window, display and camera window.

Features

Figure 1 TC56 Front View

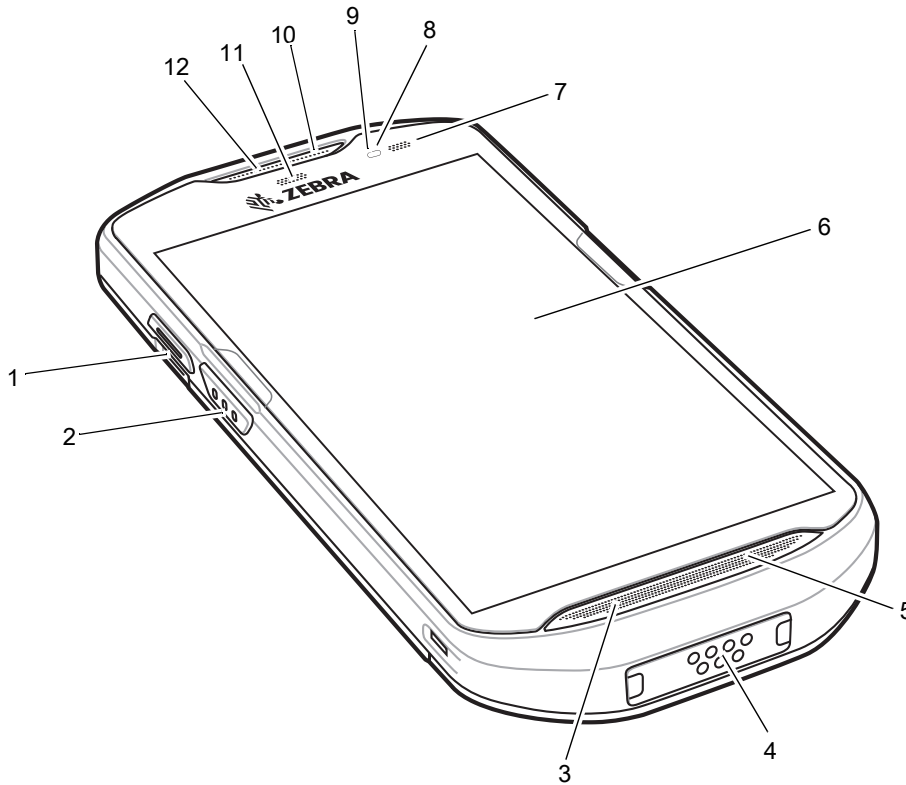


Table 1 Front View Features

Number	Item	Function
1	PTT Button	Initiates push-to-talk communications (programmable).
2	Scan Button	Initiates data capture (programmable).
3	Microphone	Use for communications in Handset mode.
4	Interface Connector	Provides USB host and client communications, audio and device charging via cables and accessories. CAUTION: Do not remove the interface connector to ensure proper device sealing.
5	Speaker	Provides audio output for video and music playback. Provides audio in speakerphone mode.
6	Touch Screen	Displays all information needed to operate the TC56.
7	Charging/Notification LED	Indicates battery charging status while charging and application generated notifications.
8	Light Sensor	Determines ambient light for controlling display backlight intensity.
9	Proximity Sensor	Determines proximity for turning off display when in handset mode.

Table 1 Front View Features (Continued)

Number	Item	Function
10	Microphone	Use for communications in Speakerphone mode.
11	Data Capture LED	Indicates data capture status.
12	Receiver	Use for audio playback in Handset mode.

Figure 2 TC56 Rear View

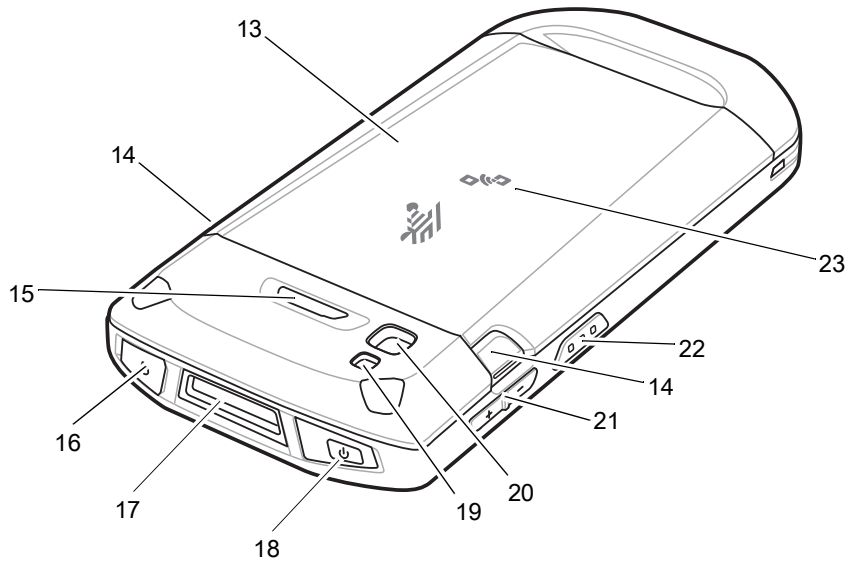


Table 2 Back View Features

Number	Item	Function
13	Battery	Provides power to the device.
14	Battery Release Latches	Press to remove the battery.
15	Programmable Button	Programmable.
16	Headset Jack	For audio output to headset.
17	Exit Window	Provides data capture using the imager.
18	Power Button	Turns the display on and off. Press and hold to reset the device, power off or swap battery.
19	Camera	Takes photos and videos.
20	Camera Flash	Provides illumination for the camera.
21	Volume Up/Down Button	Increase and decrease audio volume (programmable).
22	Scan Button	Initiates data capture (programmable).
23	NFC Antenna	Provides communication with other NFC-enabled devices.

Setup

Perform this procedure to start using the TC56 for the first time.

1. Install a micro secure digital (SD) card (optional).
2. Installing a nano SIM card (optional)
3. Install hand strap (optional).
4. Install the battery.
5. Charge the TC56.
6. Power on the TC56.

Installing a microSD Card

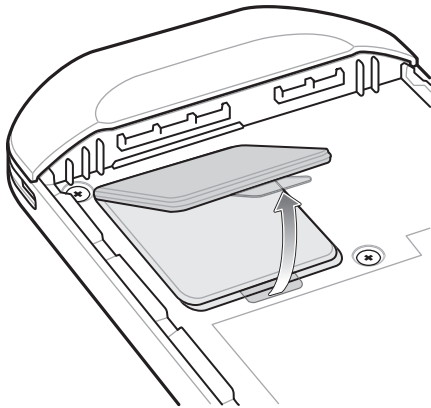
The microSD card slot provides secondary non-volatile storage. The slot is located under the battery pack. Refer to the documentation provided with the card for more information, and follow the manufacturer's recommendations for use.



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.

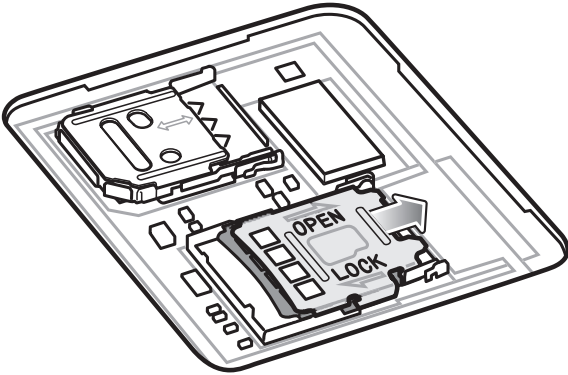
1. Lift the access door.

Figure 3 Lift Access Door



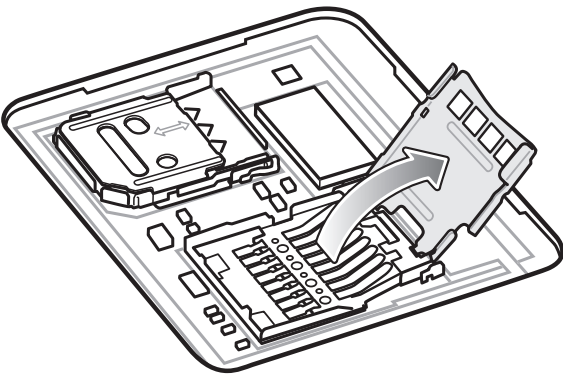
2. Slide the microSD card holder to the Open position.

Figure 4 Open microSD Card Holder



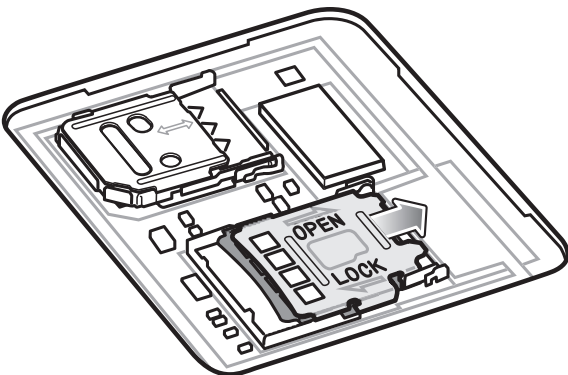
3. Lift the microSD card holder.

Figure 5 Lift microSD Card Holder



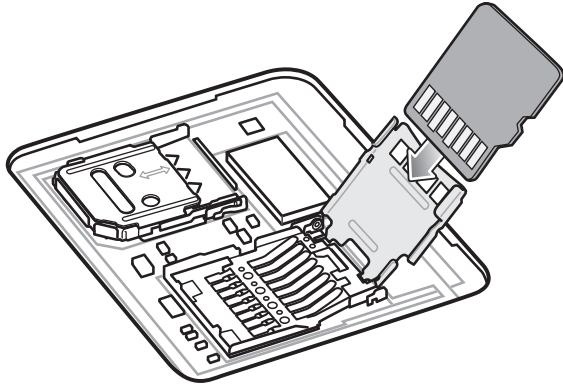
4. Insert the microSD card into the card holder door ensuring that the card slides into the holding tabs on each side of the door.

Figure 6 Lift the SIM Card Holder



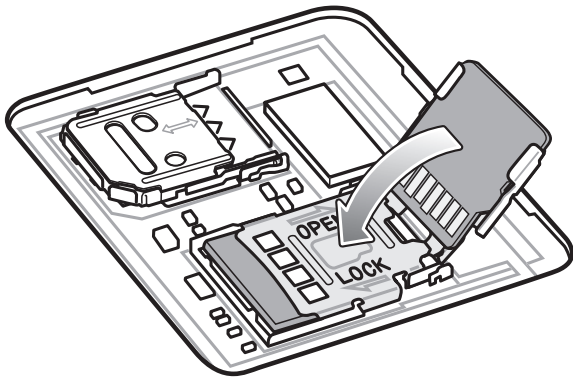
5. Insert the microSD card into the card holder door ensuring that the card slides into the holding tabs on each side of the door.

Figure 7 Insert microSD Card into Holder



6. Close the microSD card holder door.

Figure 8 Insert microSD Card in Holder



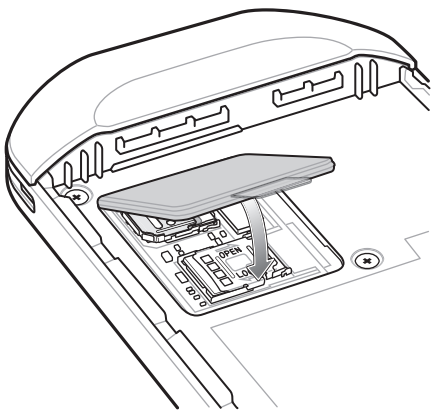
7. Slide the microSD card holder door to the Lock position.



CAUTION: Access door must be replaced and securely seated to ensure proper device sealing.

8. Re-install the access door.

Figure 9 Replace Access Door



Installing the SIM Card



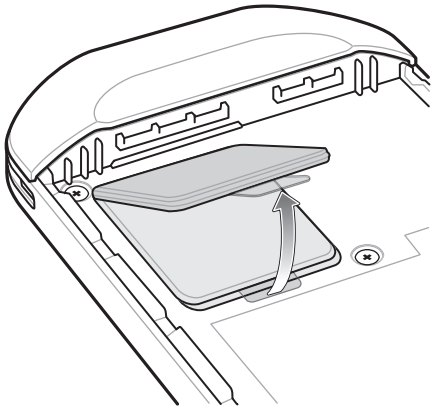
NOTE: Only use a nano SIM card.



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.

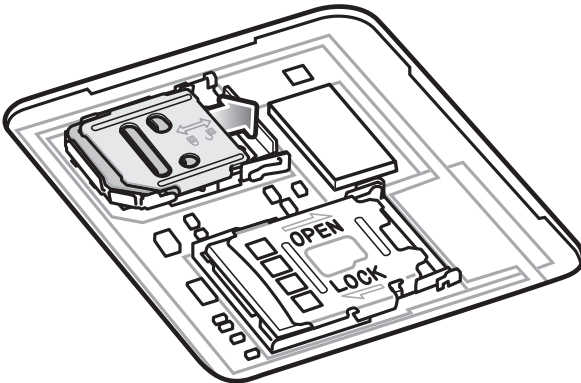
1. Remove access cover.

Figure 10 Remove Access Door



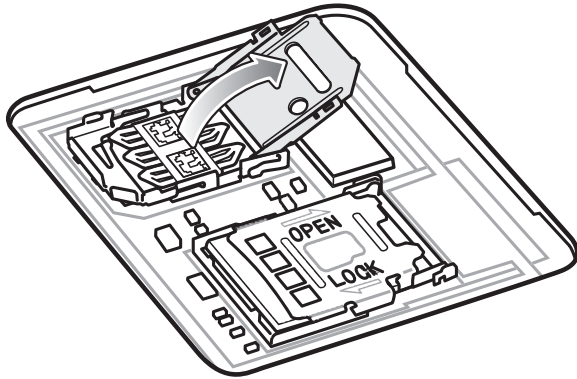
2. Slide the SIM card holder to the unlock position.

Figure 11 Unlock SIM Card Holder



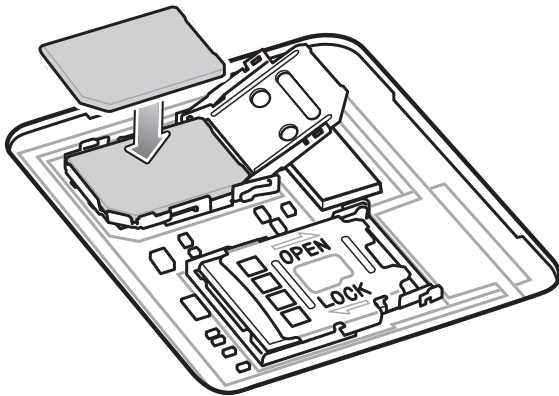
3. Lift the SIM card holder door.

Figure 12 Lift the SIM Card Holder



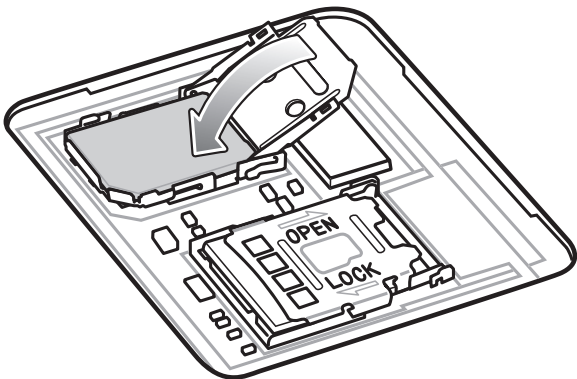
4. Place the nano SIM card into the card holder with contacts facing down.

Figure 13 Place SIM Card in Holder



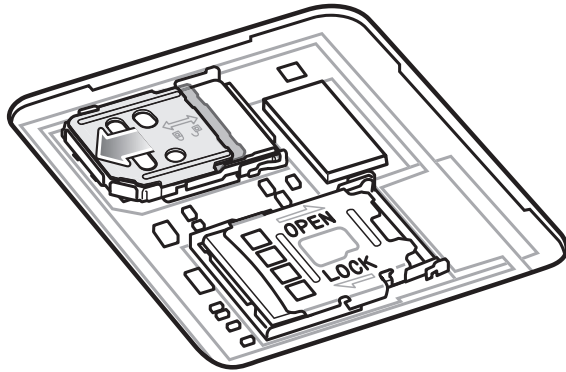
5. Close the SIM card holder door.

Figure 14 Close SIM Card Holder Door



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

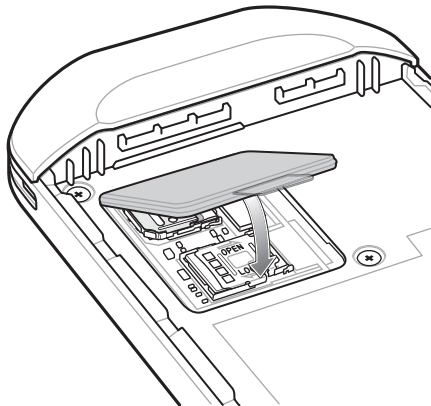
Figure 15 Lock SIM Card Holder Door



CAUTION: Access door must be replaced and securely seated to ensure proper device sealing.

7. Re-install the access door.

Figure 16 Replace Access Door

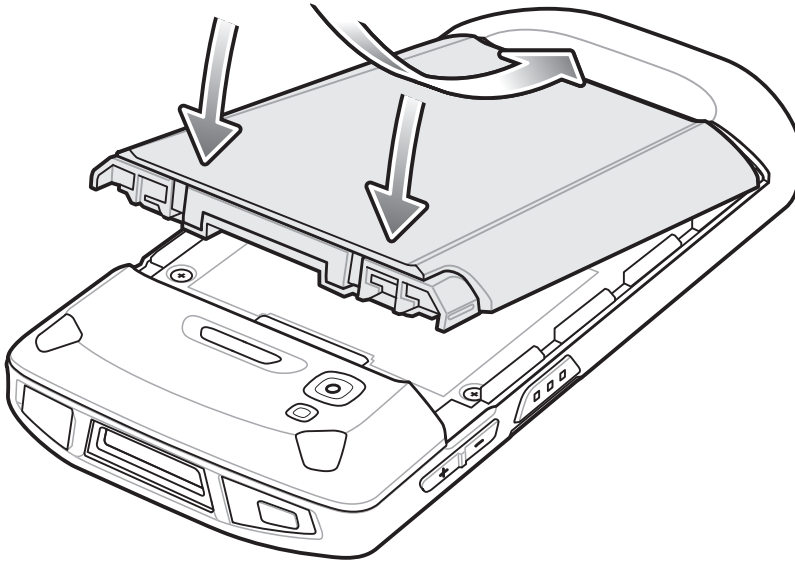


Installing the Battery



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 TC56.

Figure 17 Insert Bottom of Battery into Battery Compartment

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

Charging the Battery

Before using the TC56 for the first time, charge the main battery until the green Charging/Notification light emitting diode (LED) remains lit. To charge the TC56 use a cable or a cradle with the appropriate power supply. For information about the accessories available for the TC56 see [Accessories](#) for more information.

The ≥ 15.48 Watt hours (typical) / $\geq 4,150$ mAh battery charges from fully depleted to 90% in approximately 2.5 hours and from fully depleted to 100% in approximately three hours.



NOTE: In many cases the 90% charge provides plenty of charge for daily use. A full 100% charge lasts for approximately 14 hours of use.








To achieve the best fast charging results use only Zebra charging accessories and batteries. Charge batteries at room temperature with the TC56 in sleep mode.

Charge batteries in temperatures from 0°C to 40°C (32°F to 104°F). The TC56 or accessory always performs battery charging in a safe and intelligent manner. At higher temperatures (e.g. approximately +37°C (+98°F)) the TC56 or accessory may for small periods of time alternately enable and disable battery charging to keep the battery at acceptable temperatures. The TC56 or accessory indicates when charging is disabled due to abnormal temperatures via its LED and a notification appears on the display.

1. To charge the main battery, connect the charging accessory to the appropriate power source.
2. Insert the TC56 into a cradle or attach to a cable. The TC56 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	LED	Indication
Off		TC56 is not charging. TC56 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)		TC56 is charging.
Slow Blinking Red (1 blink every 4 seconds)		TC56 is charging but the battery is at end of useful life.
Solid Green		Charging complete.
Solid Red		Charging complete but the battery is at end of useful life.
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).
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: The TC56 has to be connected to the internet in-order to set up a Google account. Google account only required on devices with GMS software.

The first time the TC56 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

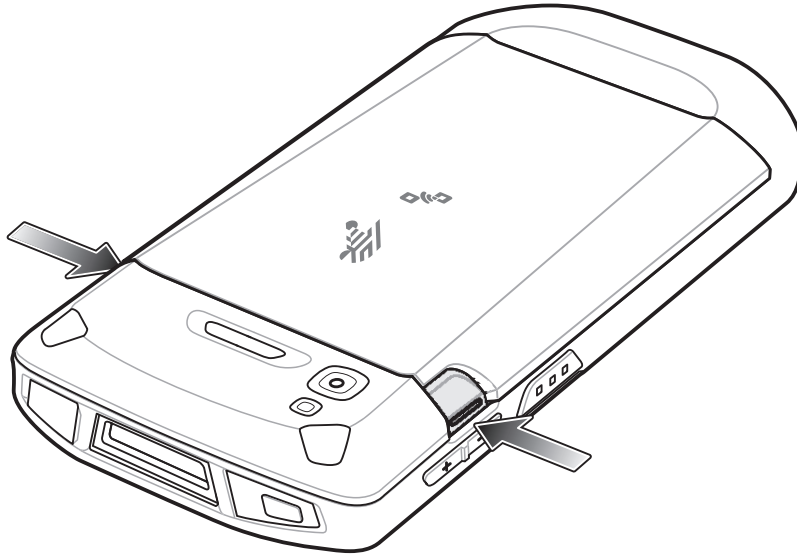


CAUTION: Do not add or remove microSD card during battery replacement.

1. Press the Power button until the menu appears.
2. Touch **Battery Swap**.
3. Follow the on-screen instructions.
4. Wait for the LED to turn off.
5. If hand strap is attached, remove hand strap.

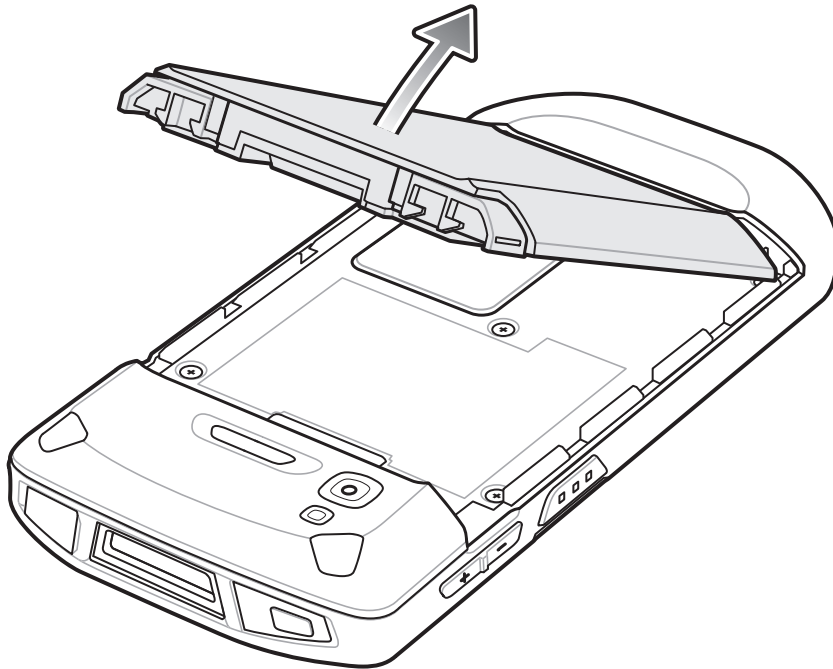
6. Press the two battery latches in.

Figure 18 Press Battery Latches



7. Lift the battery from the TC56.

Figure 19 Lift the Battery



CAUTION: Replace the battery within 90 seconds. After 90 seconds the device reboots and data may be lost.

8. Insert the replacement battery, bottom first, into the battery compartment in the back of the TC56.
9. Press the battery down until the battery release latch snaps into place.
10. Replace the hand strap, if required.

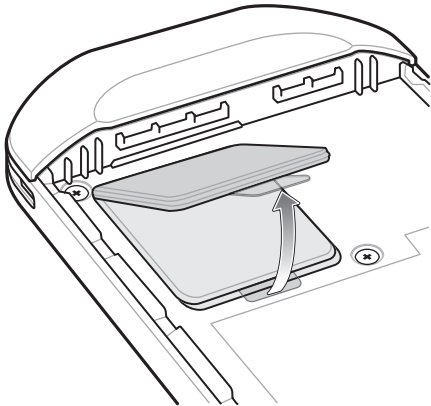
11. Press the Power button to turn on the TC56.

Replacing the microSD Card

To replace the microSD card:

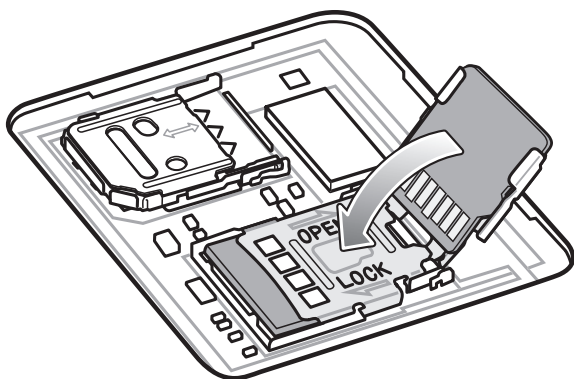
1. Press the Power button until the menu appears.
2. Touch **Power off**.
3. Touch **OK**.
4. If hand strap is attached, slide the hand strap clip up toward the top of the TC56 and then lift.
5. Press the two battery latches in.
6. Lift the battery from the TC56.
7. Lift the access door.

Figure 20 Remove Access Door



8. Slide the microSD card holder to the Open position.
9. Lift the microSD card holder.
10. Remove microSD card from holder.
11. Insert the replacement microSD card into the card holder door ensuring that the card slides into the holding tabs on each side of the door.
12. Close the microSD card holder door.

Figure 21 Insert microSD Card in Holder



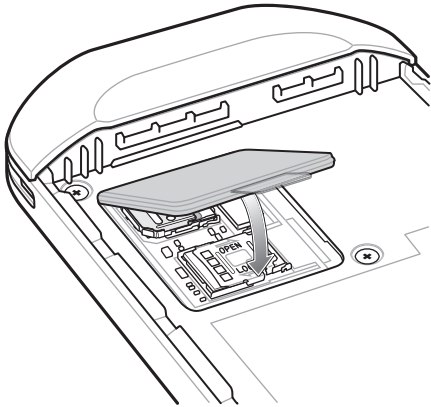
13. Slide the microSD card holder door to the Lock position.
14. Press the access door down and ensure that it is properly seated.



CAUTION: Access door must be replaced and securely seated to ensure proper device sealing.

15. Replace the access door.

Figure 22 Replace Access Door



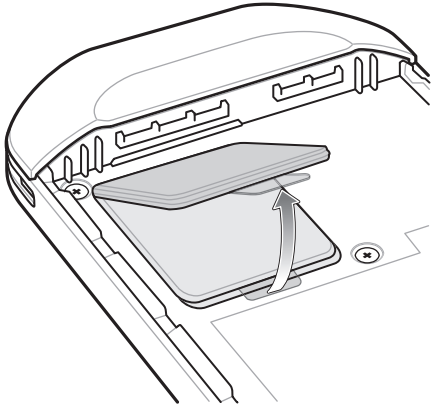
16. Insert the battery, bottom first, into the battery compartment in the back of the TC56.
17. Press the battery down until the battery release latch snaps into place.
18. Replace the hand strap, if required.
19. Press and hold the Power button to turn on the TC56.

Replacing the SIM Card

To replace the SIM card:

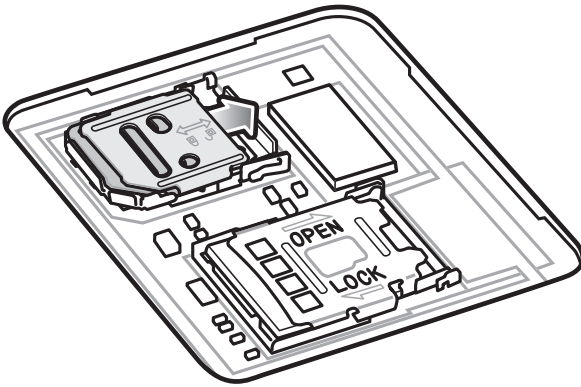
1. Press the Power button until the menu appears.
2. Touch **Power off**.
3. Touch **OK**.
4. If hand strap is attached, slide the hand strap clip up toward the top of the TC56 and then lift.
5. Press the two battery latches in.
6. Lift the battery from the TC56.
7. Lift the access door.

Figure 23 Remove Access Door



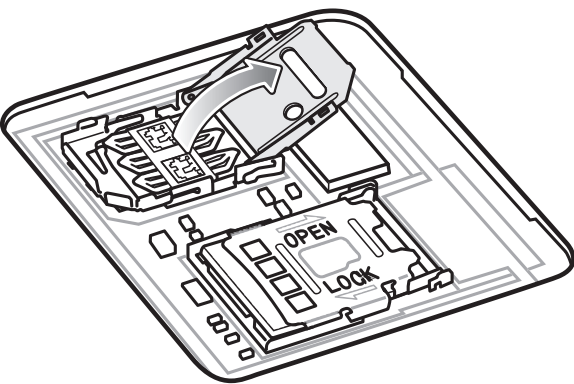
8. Slide the SIM card door to the unlock position.

Figure 24 Unlock SIM Card Door



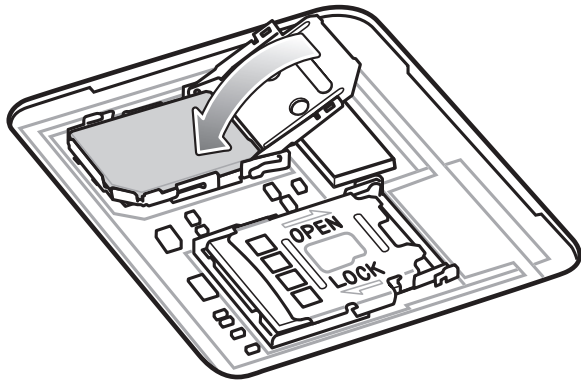
9. Lift the SIM card holder door.

Figure 25 Lift the SIM Card Door



10. Remove the SIM card.
11. Place the new SIM card into the card holder with contacts facing down.
12. Close the SIM card holder.

Figure 26 Close the SIM Card Door



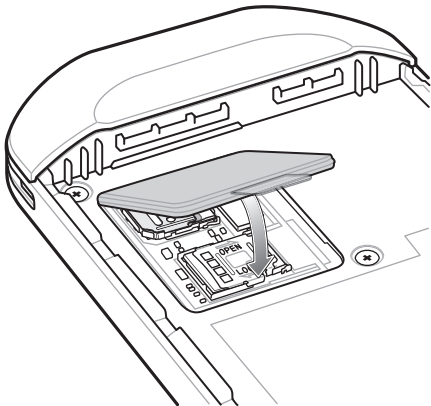
13. Slide the SIM card holder door to the lock position.



CAUTION: Access door must be replaced and securely seated to ensure proper device sealing.

14. Replace the access door.

Figure 27 Replace Access Door



15. Insert the battery, bottom first, into the battery compartment in the back of the TC56.



16. Press the battery down until the battery release latch snaps into place.

17. Replace the hand strap, if required.

18. Press and hold the Power button to turn on the TC56.

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 TC56 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 status indicates that the battery is discharging and **Battery level** lists the battery charge (as a percentage of fully charged). The battery percentage can also be viewed next to the battery icon in the quick access panel. Swipe down with two fingers from the status bar to open the quick access panel.

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.



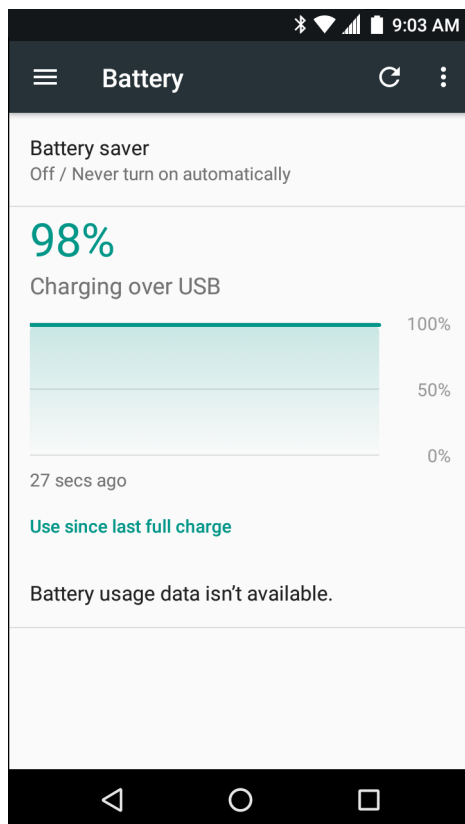
1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Battery**.

Figure 28 Battery Screen



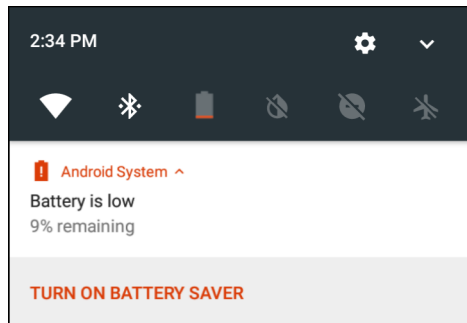
The Battery screen lists the applications using the battery. The discharge graph at the top of the screen shows the rate of the battery discharge since last charged (short periods of time when connected to a charger are shown as thin green lines at the bottom of the chart), and how long it has been running 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 TC56 displays a notice to connect the TC56 to power. The user should charge the battery using one of the charging accessories.

Figure 29 Low Battery Notification



When the battery charge drops below 10%, the TC56 displays a notice to connect the TC56 to power. The user must charge the battery using one of the charging accessories.

When the battery charge drops below 4%, the TC56 turns off.

The user must charge the TC56 using one of the charging accessories.


Battery Optimization

Observe the following battery saving tips:

- Disable DataWedge Launcher profile. Refer to the TC56 Touch Computer Integrator Guide for Android 7.1.2 for instructions.
- Set the screen to turn off after a short period of non-use. See [Setting Screen Timeout Setting on page 35](#).
- Reduce screen brightness. See [Setting the Screen Brightness on page 34](#).
- Turn off all wireless radios when not in use.
- Turn off automatic syncing for Email, Calendar, Contacts and other applications.
- Minimize use of applications that keep the TC56 from suspending, for example, music 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 TC56 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. Move the sliders up and down to select the month, date and year.
6. Touch **Done**.
7. Touch **Set time**.
8. Move the sliders up and down to select the hour, minutes and part of the day.
9. Touch **Done**.
10. Touch **Select time zone**.
11. Select the current time zone from the list.
12. 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 30 Brightness Dialog Box





To let the TC56 automatically adjust the screen brightness using the built-in light sensor:

1. Touch  **Display**.
2. Touch **Brightness Level**.
3. Touch **Adaptive brightness** to automatically adjust the brightness.
4. 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 to contents of the screen** to set the TC56 to automatically switch orientation when the TC56 is rotated.
4. Touch

Setting Home Screen Rotation

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


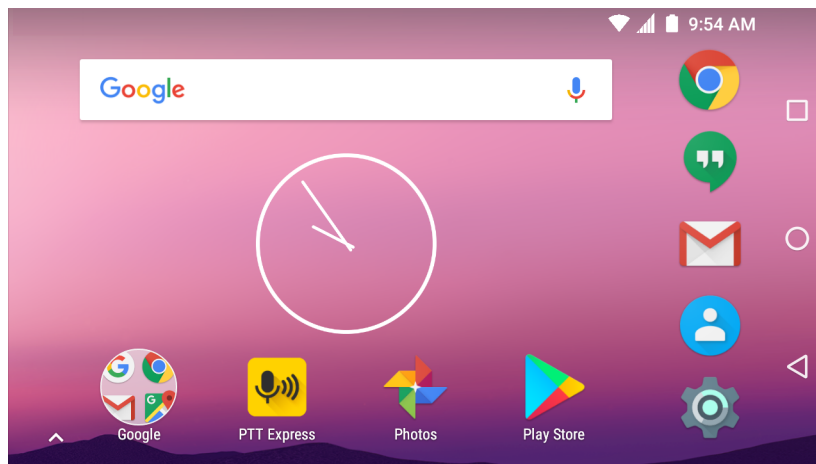


1. Touch and hold anywhere on the Home screen until the options appear.
2. Touch .
3. Touch Allow rotation switch.
4. Touch .
5. Rotate the device.

Figure 31 Rotated Home Screen



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 .




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**.
4. Select one of the font size values.
 - Small
 - **Normal** (default)
 - Large
 - Largest
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** to disable.
4. Touch .

Touch Panel Mode

The TC56 display is able to detect touches using a finger, a conductive-tip stylus or gloved finger with or without a screen protector.



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

For optimal performance use Zebra certified stylus.



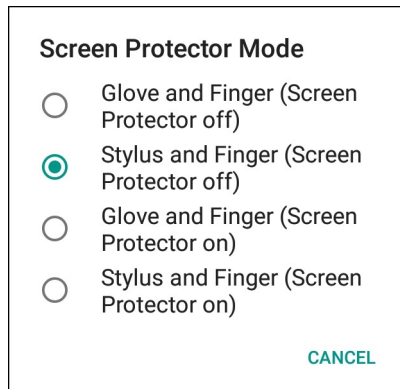





1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Display**.
3. Touch **Touch panel mode**.

Figure 32 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 .





Setting Notification LED

The Charging/Notification LED lights blue when an application, such as email and VoIP, generates a programmable notification or to indicate when the TC56 is connected to a Bluetooth device. By default, LED notifications are enabled. To change the notification setting:

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.
4. Touch .

Cast

Use **Cast** to mirror the TC56 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 TC56 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.



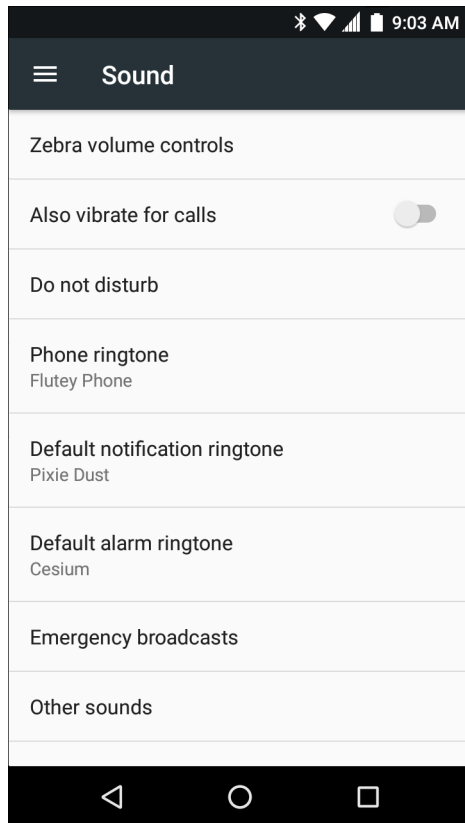



1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Sound**.

Figure 33 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 TC51 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.
- **Also vibrate for calls** - Turn on the switch to make the device vibrate when a call is received (default – disabled).

- **Do not disturb** - Mutes the TC51 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** - Choose from anyone, starred contacts, any contact, or none. To star contacts, use the Contacts app.
 - **Repeat callers** - Choose whether to let the TC51 ring if the same person calls again within 15 minutes.
- **Automatic rules** - To automatically silence the TC51 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.
- **Phone ringtone** - Touch to select a sound to play for incoming calls.
- **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.
- **Emergency Broadcasts** - Touch to configure emergency broadcast settings and notifications.
- **Other sounds**
 - **Dial pad tones** - Play a sound when pressing keys on dial pad (default - disabled).
 - **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 TC56 wakes from suspend mode when the user presses the power button. The TC56 can be configured to wake when the user presses the PPT or Scan buttons on the left side of the device.



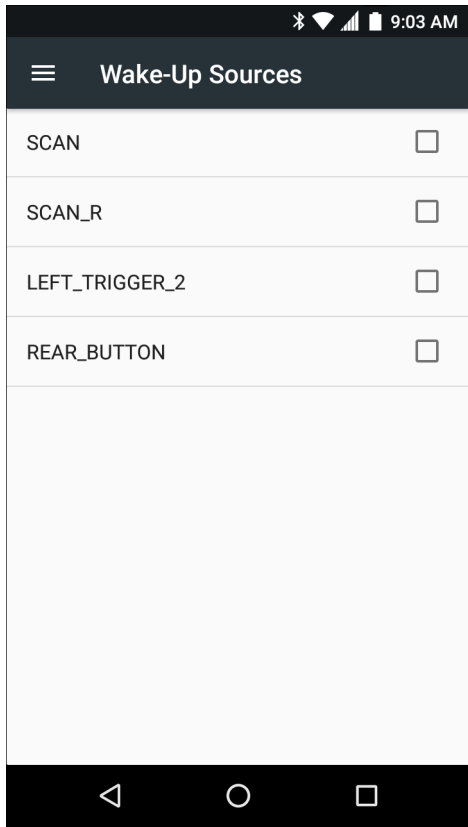
1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Wake-Up Sources**.
3. Touch **SCAN** checkbox. A check appears in the checkbox.
4. Touch **SCAN_R** checkbox. A check appears in the checkbox.
5. Touch **LEFT_TRIGGER_2** checkbox. A check appears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

Figure 34 Wake-Up Sources



7. Touch .

Using the TC56

Introduction

This chapter explains the buttons, status icons, and controls on the TC56, and provides basic instructions for using the TC56 including resetting the TC56 and entering data.

Google Mobile Services



NOTE: This section only applies to TC56 devices with Google Mobile Services (GMS) software.

The TC56 with GMS contains applications and services that provide additional functionality to the TC56.

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 TC56 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 TC56 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 60](#).

Figure 35 Home Screen

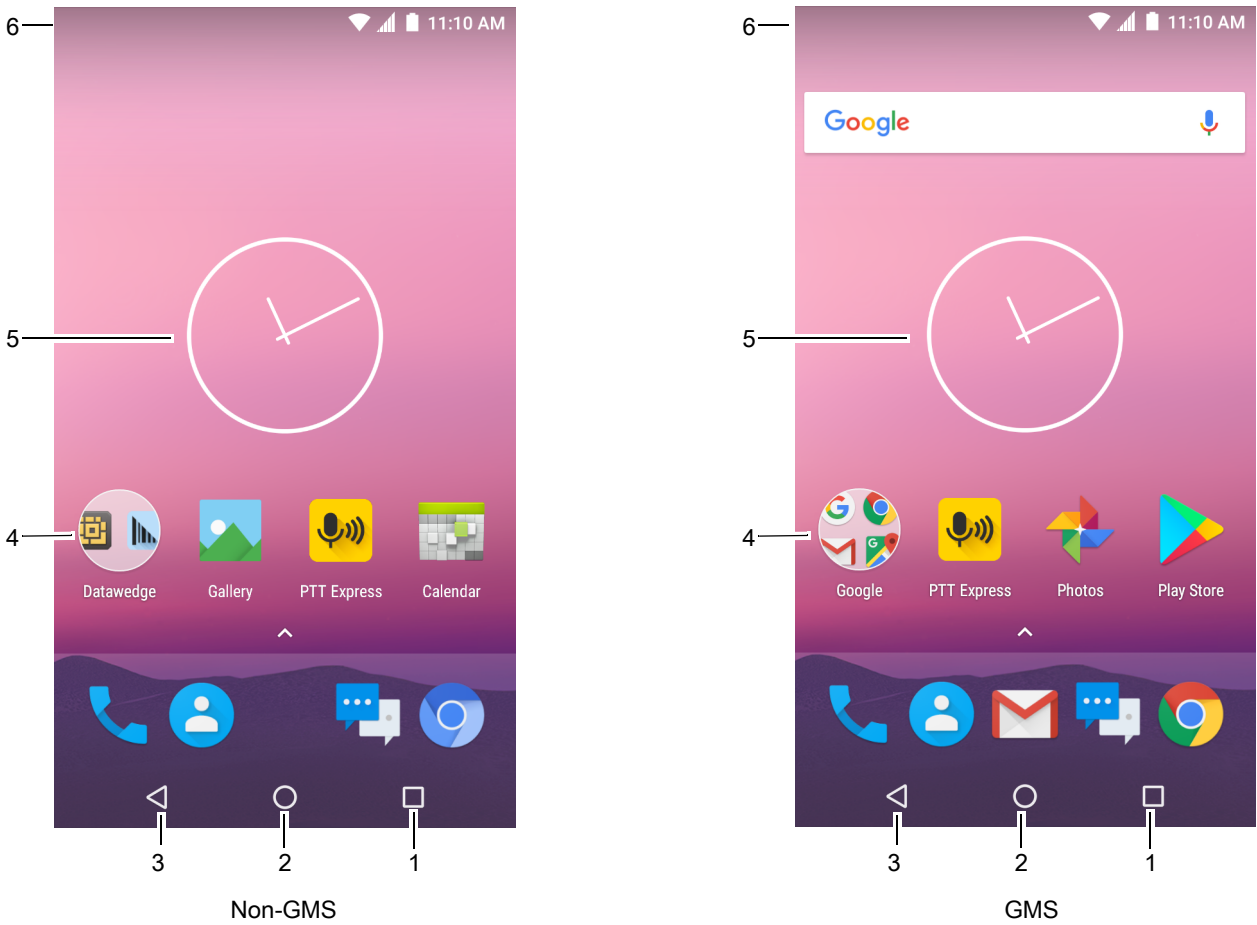


Table 4 Home Screen Items

Item	Description
1 — Recent Button	Displays recently used applications.
2 — Home	Displays the Home screen.
3 — Back	Displays the previous screen.
4 — Shortcut Icons	Opens applications installed on the TC56. See Application Shortcuts and Widgets on page 49 for more information.

Table 4 Home Screen Items (Continued)

Item	Description
5 — Widgets	Launches stand-alone applications that run on the Home screen. See Application Shortcuts and Widgets on page 49 for more information.
6 — Status Bar	Displays the time, status icons (right side), and notification icons (left side). For more information see Status Bar on page 43 and Managing Notifications on page 45 .

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


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 36 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.

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



















Table 5 Status Icons (Continued)

Icon	Description
	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 TC56 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.
	Portable Wi-Fi Hotspot is active.
	Mobile network signal strength.
	No mobile network signal.
	Connected to a 4G LTE/LTE-CA network (see Note 1).
	Connected to a DC -HSPA, HSDPA, HSPA+, HSUPA, LTE/LTE-CA or WCDMA network (see Note 1).
	Connected to a 1x-RTT (Sprint), EGDGE, EVDO, EVDV or WCDMA network (see Note 1).
	Connected to an DC - HSPA, HSDPA, HSPA+ or HSUPA network (see Note 1).
	Connected to an EDGE network (see Note 1).
	Connected to a GPRS network (see Note 1).
	Connected to a GPRS network (see Note 1).
	Connected to a 1x-RTT (Verizon) network (see Note 1).
	Roaming from a network.
	No SIM card installed.

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

Notification Icons

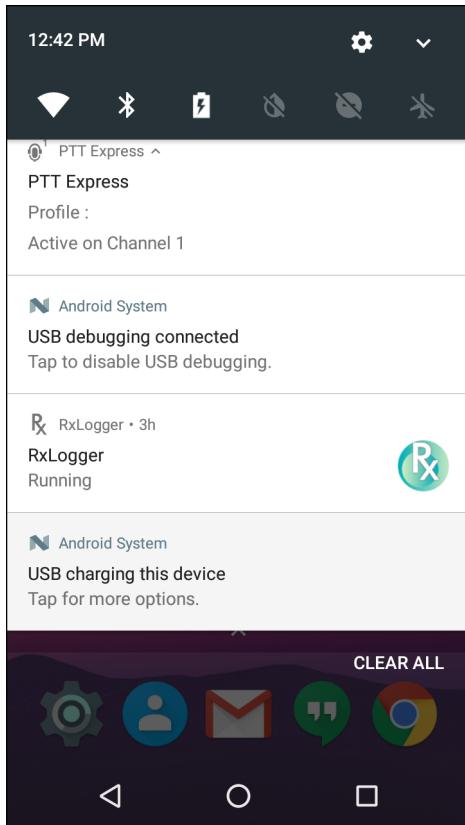
Table 6 Notification Icons

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 TC56 is uploading data.
	Indicates that the TC56 is downloading data when animated and download is complete when static.
	Indicates that USB tethering is active.
	Indicates that the TC56 is connected to or disconnected from virtual private network (VPN).
	Preparing Internal Storage.
	Indicates that USB debugging is enabled on the TC56.
	Headset is connected to device.
	Indicates the status of the PTT Express Voice Client. See Notification Icons for complete list of PTT Express notification icons.
	Indicates that RxLogger application is running.
	Indicates the RS507 or the RS6000 is connected to the TC56.
	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 45](#) 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 37 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. 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 TC56 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**.

Quick Access Panel

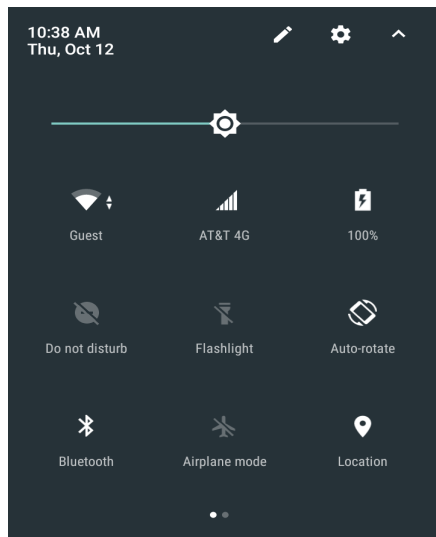
Use Quick Access Panel to get to frequently used settings, like turning on airplane mode. To open Quick Access Panel, swipe down from the top of the screen with two fingers or twice with one finger.

Figure 38 Quick Settings



To see the full Quick Settings panel:

- If the TC56 is locked, swipe down once.
- If the TC56 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 39 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.
- 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  **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.

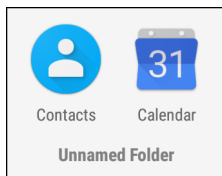
1. Go to the desired Home screen.
2. Touch and hold on one application icon.
3. Drag the icon and stack on top of another icon.
4. Lift and release.


Naming Folders

To name a folder:

1. Touch the folder.


Figure 40 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  **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 the Shift key once for a single capital letter. Touch the Shift key twice to lock in uppercase. Touch the Shift key a third time to unlock Capslock.
- Touch  to switch to the numbers and symbols keyboard.
- Touch  on the numbers and symbols keyboard to view additional symbols.
- Touch  on the AOSP keyboard or  on the GMS keyboard 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 TC56 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 TC56 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 TC56 completely, or let through the important alarms or important calls.

Total Silence

To completely mute the TC56 so that it does not make a sound or vibrate, choose **Total silence**.


In Total silence mode:

- Alarms do not make noise.
- TC56 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 TC56 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 TC56 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 TC56 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 TC56 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 TC56 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 TC56. Refer to the TC56 Touch Computer Integrator Guide for Android Version 7.1.2 for information on installing and uninstalling application.

Table 7 Applications












Icon	Description
	ActiveEdge Touch Zone - Provides quick and convenient on-touch access to key features or applications while users are in the middle of other workflow applications or tasks.
	AppGallery - Provides links to utilities and demonstration applications that can be installed on the TC56.
	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 Hans-free Imager with the TC56 by scanning a bar code.
	Calculator - Provides the basic and scientific arithmetic functions.
	Calendar - Use to manage events and appointments (Available only on devices without GMS software).
	Calendar - Use to manage events and appointments (Available only on devices with GMS software).
	Chrome - Use to access the Internet or intranet (Available only on devices with GMS software).
	Chromium - Use to access the Internet or intranet. TC56 without GMS only.
	Clock - Use to schedule alarms for appointments or as a wake-up.

Table 7 Applications (Continued)














Icon	Description
	Contacts - Use to manage contact information. See Contacts on page 96 for more information.
	DataWedge - Enables data capture using the imager.
	Device Central - Use to display detailed information about the TC56 and connected peripherals. See Device Central on page 86 for more information.
	Diagnostic Tool - Use to diagnose the TC56.
	Downloads - lists all downloads files.
	Drive - Upload photos, videos, documents, and other files to personal storage site (Available only on devices with GMS software).
	Duo - A one-to-one video calling application (Available only on devices with GMS software).
	DWDemo - Provides a way to demonstrate the data capture features using the imager. See DataWedge Demonstration on page 114 for more information.
	Email - Use to send and receive email.
	File Browser - Organize and manage files on the TC56. See File Browser on page 92 for more information.
	Gallery - Use to view photos stored on the microSD card. For more information, see Gallery on page 102 for more information. TC56 without GMS only.
	Gmail - Use to send and receive email using a Google email account (Available only on devices with GMS software).
	Google - Launches Google search application (Available only on devices with GMS software).

Table 7 Applications (Continued)






















Icon	Description
	Maps - Use to see you 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 (Available only on devices with GMS software).
	Messaging - Send SMS and MMS messages. See Messaging on page 94 for more information.
	Music - Play music stored on the microSD card (Available only on devices without GMS software).
	Notes - Use to take and save notes.
	Phone - Use to make cellular calls or to dial a phone number when used with some Voice over IP (VoIP) clients.
	Photos - Use to sync photos with Google account (Available only on devices with GMS software).
	Play Movies & TV - View movies and video on your device (Available only on devices with GMS software).
	Play Music - Use to listen to music (Available only on devices with GMS software).
	Play Store - Download music, movies, books, and Android apps and games from the Google Play Store (Available only on devices with GMS software).
	PTT Express - Use to launch PTT Express client for VoIP communication.
	RxLogger - Use to diagnose device and application issues. See the TC56 Touch Computer 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).

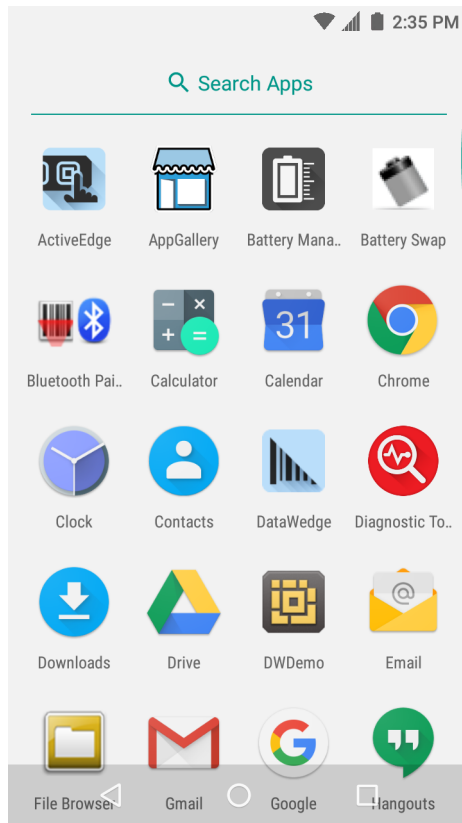
Table 7 Applications (Continued)

Icon	Description
	Settings - Use to configure the TC56.
	SimulScan Demo - Use to demonstrate the document capture feature of the TC56.
	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 97 .
	Sound Recorder - Use to record audio (Available only on devices without GMS software).
	StageNow - Allows the TC56 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 (Available only on devices with GMS software).
	YouTube - Use to view videos on the YouTube web site (Available only on devices with GMS software).

Accessing Applications

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

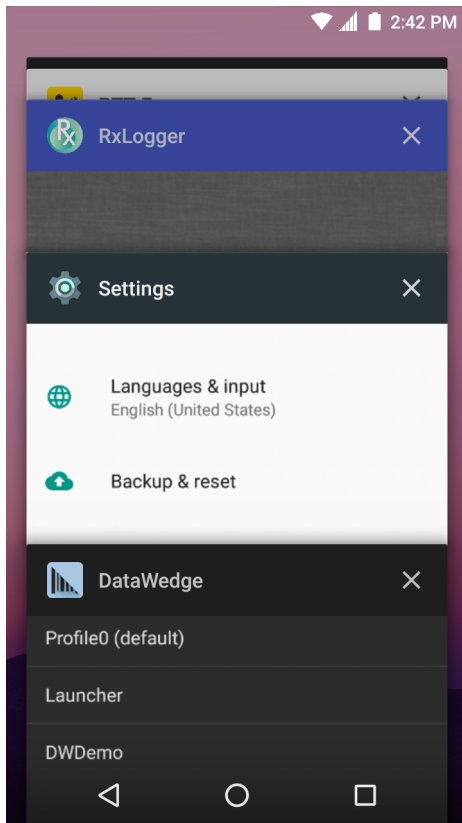
1. On the Home screen, swipe up from the bottom of the screen.


Figure 41 APPS Window Example

2. Slide the **APPS** window left or right to view more application icons. Touch an icon to open the application. See [Application Shortcuts and Widgets on page 49](#) for information on creating a shortcut on the Home screen.

Switching Between Recent Applications

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

Figure 42 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 TC56. Some email account require locking the screen. Refer to the TC56 Touch Computer 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 43 Lock Screen

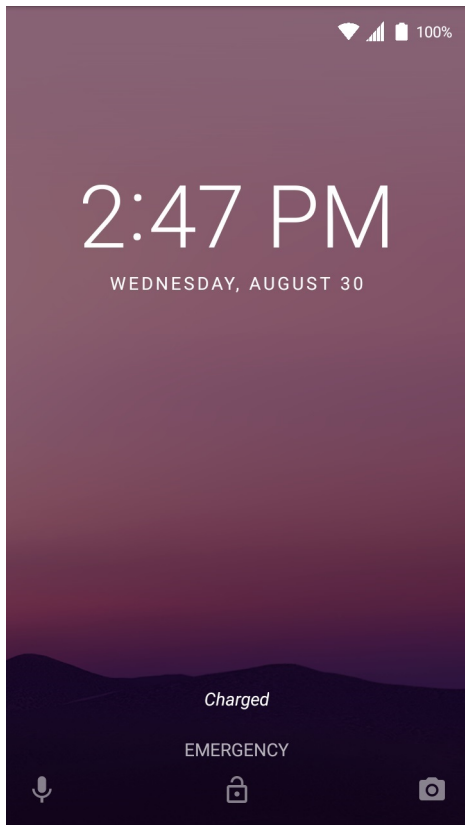


Figure 44 PIN Screen

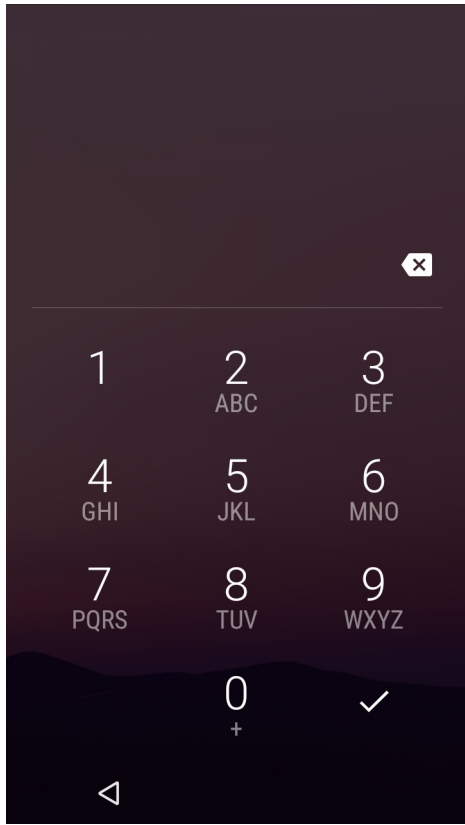


Figure 45 Pattern Screen

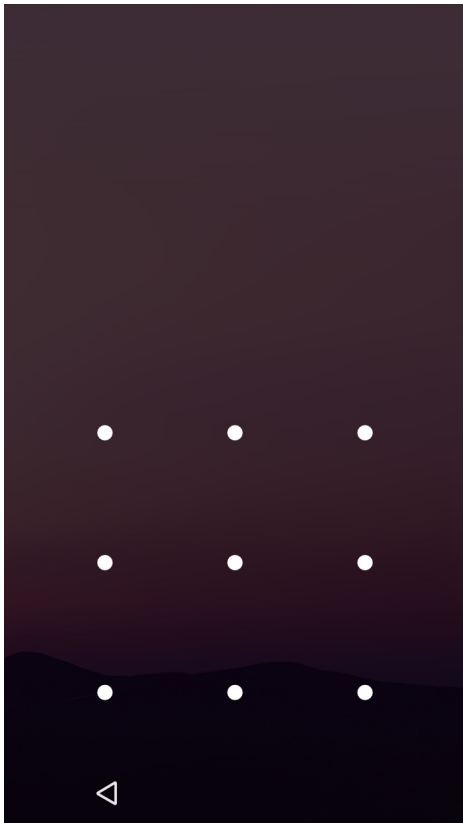
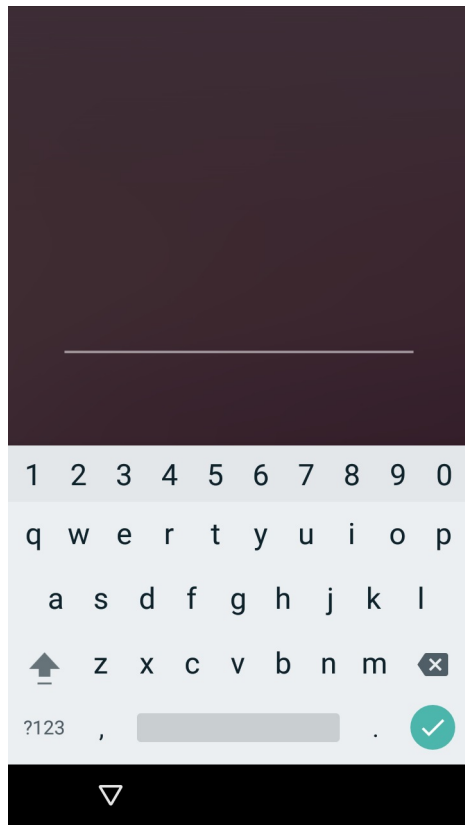


Figure 46 Password Screen



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 microSD card installed in the TC56 may cause damage or data corruption to the microSD card.

Perform a hard reset if the TC56 stops responding.

1. Simultaneously press the Power, PTT and Volume Up buttons for at least four seconds.
2. When the screen turns off, release the buttons.
3. The TC56 reboots.

Suspend Mode

The TC56 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 TC56 from Suspend mode, press the Power button.

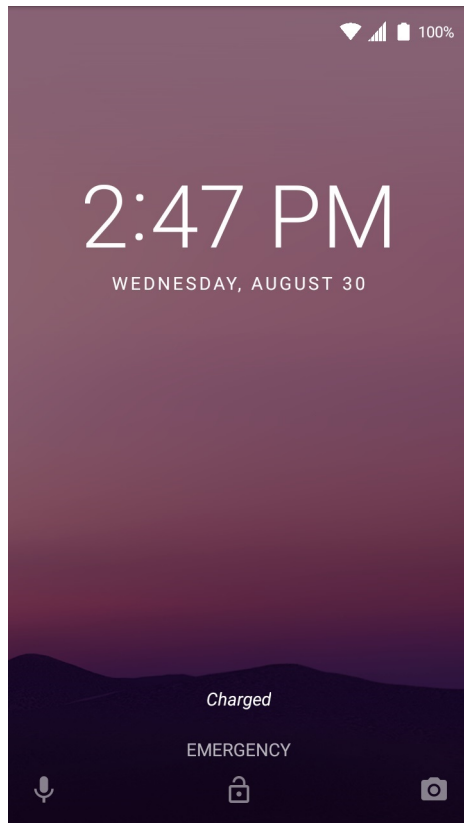
The Lock screen displays. Swipe the screen up to unlock. If the Pattern screen unlock feature is enabled, the Pattern screen appears instead of the Lock screen. If the PIN or Password screen unlock feature is enabled, enter the PIN or password after unlocking the screen. See [Un-Locking the Screen on page 60](#).



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 47 Lock Screen



Transferring Files with a Host Computer via USB

Connect the TC56 to a host computer using the USB Charging cable or the 1-Slot USB cradle to transfer files between the TC56 and the host computer. See [Accessories](#) for more information.

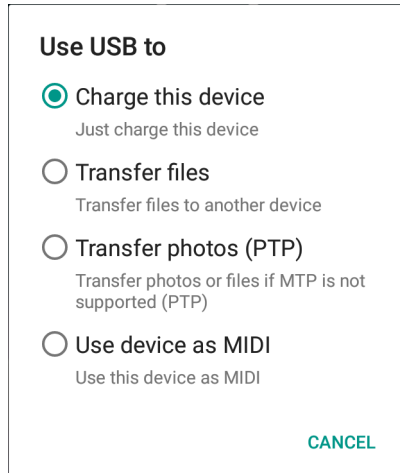
When connecting the TC56 to a host computer, follow the host computer's instructions for connecting and disconnecting USB devices, to avoid damaging or corrupting files.

Transferring Files using Media Transfer Protocol

✓ **NOTE:** Use Media Transfer Protocol (MTP) to copy files between the TC56 (internal memory or microSD card) and the host computer.

1. Connect the Rugged Charge/USB Cable to the TC56 or place the TC56 into the 1-Slot USB/Charge Only Cradle. See [Accessories](#) for setup information.
2. Pull down the Notification panel and touch **USB charging this device**.

Figure 48 Use USB Dialog Box

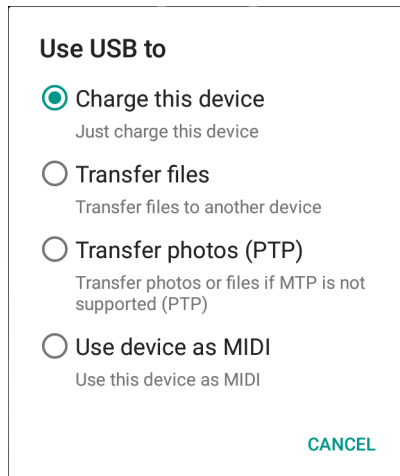


3. Touch **Transfer files**.
4. On the host computer, open a file explorer application.
5. Locate the **TC56** as a portable device.
6. Open the **SD card** or the **Internal storage** folder.
7. Copy files to and from the TC56 or delete files as required.

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 Rugged Charge/USB Cable to the TC56 or place the TC56 into the 1-Slot USB/Charge Only Cradle. See [Accessories](#) for setup information.
2. Pull down the Notification panel and touch **USB charging this device**.

Figure 49 Use USB Dialog Box

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 Charging cable from the device or remove the device from the cradle.

Calls

Introduction

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 153](#) 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 50 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.



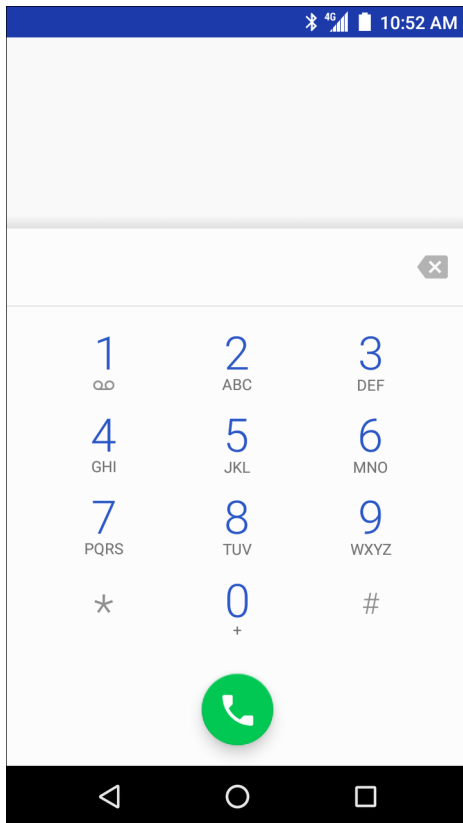
1. On the Home screen touch .
2. Touch .

Figure 51 Dialer Screen




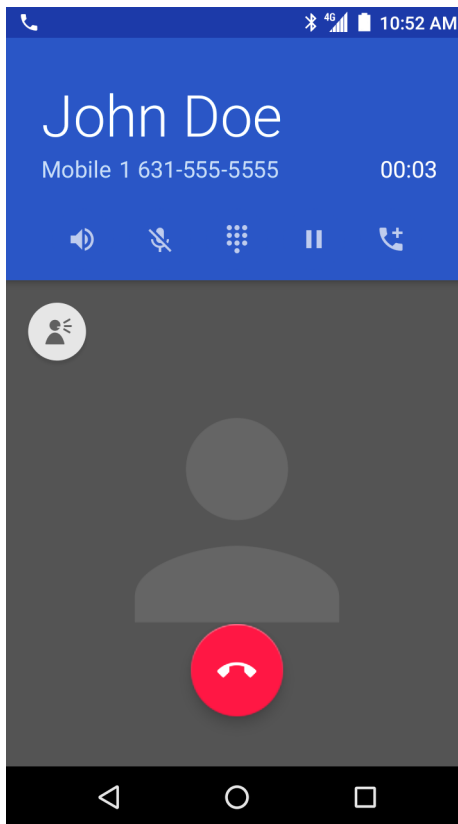






3. Touch the keys to enter the phone number.
4. Touch  below the dialer to initiate the call.

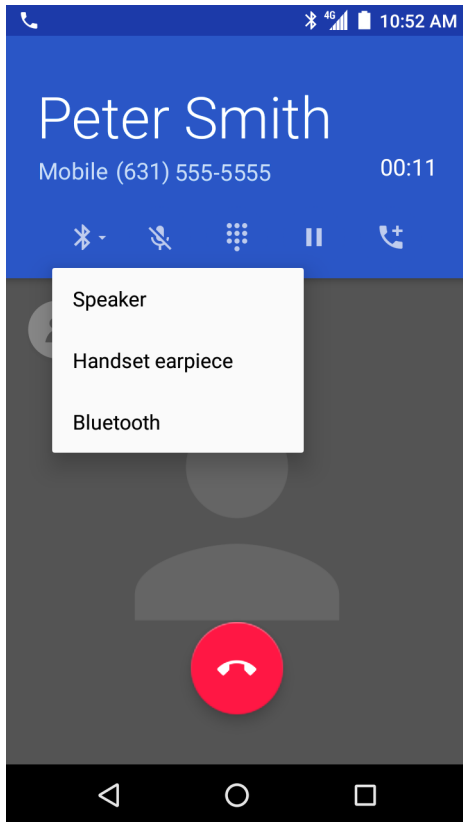
Figure 52 Call in Progress




-  - 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 (not available on all services).
-  - touch to create a conference call.
-  - touch to increase audio level.

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 53 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



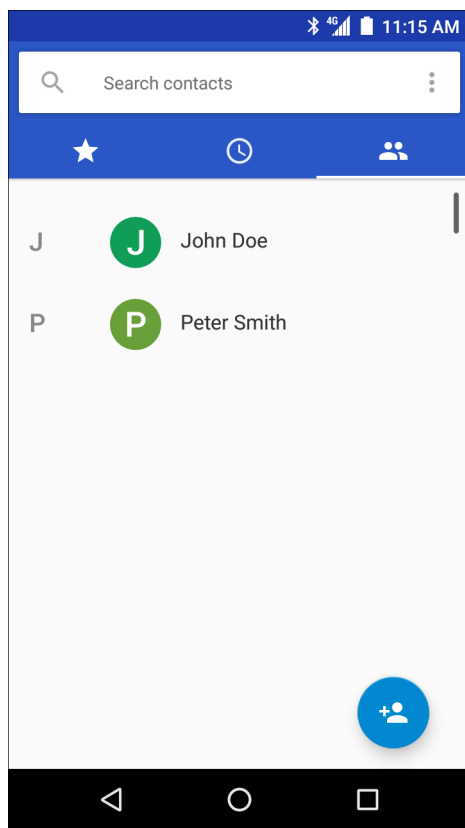


1. On the Home screen touch .
2. Touch the  tab.

Figure 54 Dialer Contacts Tab



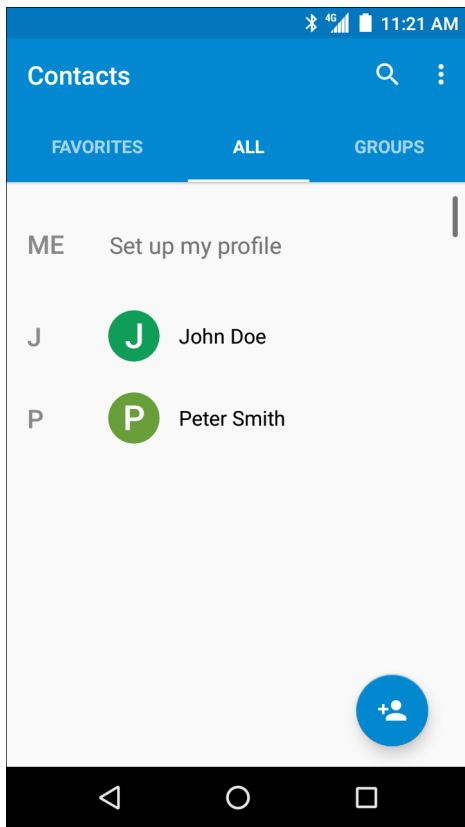
3. Touch the contact.
4. Touch  to initiate the call.
5. Touch  to end the call.

Using the Contacts Application

To make a call from the Contacts application:

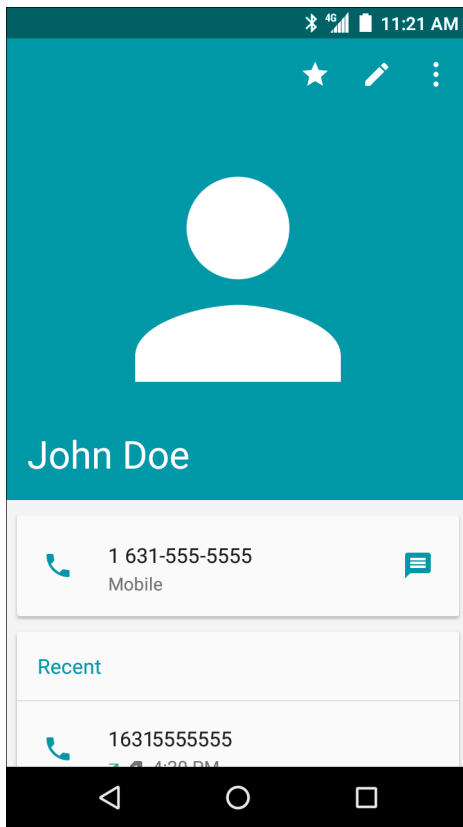
1. Touch .

Figure 55 Contact Application



2. Touch a contact name.

Figure 56 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.



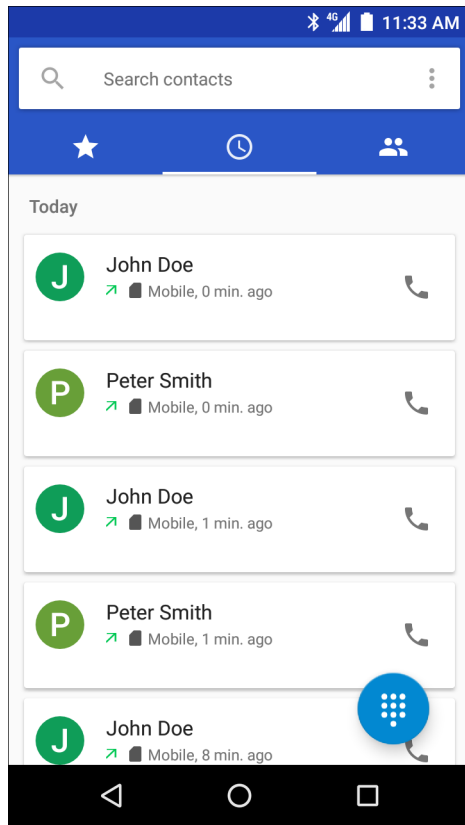


1. On the Home screen touch .
2. Touch the  tab.

Figure 57 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 on GSM

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.


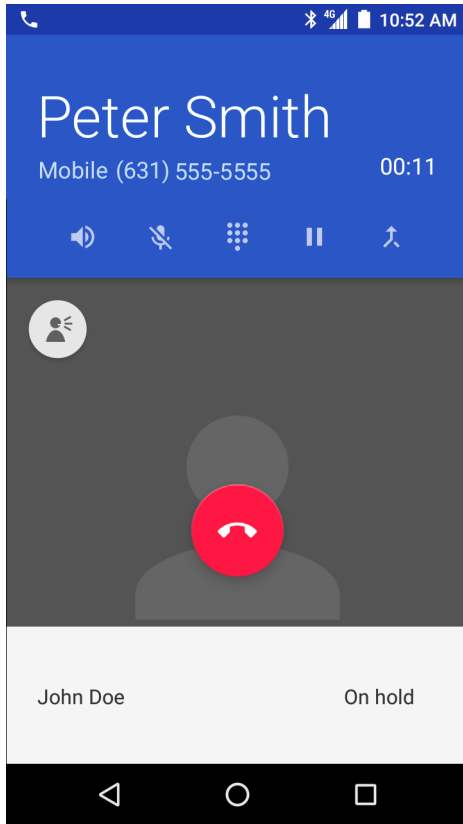
8. Touch  below the dialer to initiate the call.
9. When the call connects, the first call is placed on hold and the second call is active.

Figure 58 Two Calls




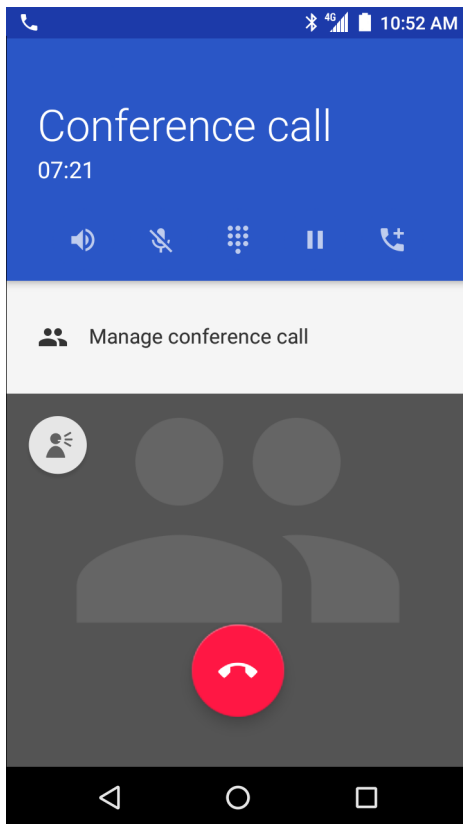
10. Touch  icon to create a conference call with three people.

Figure 59 Merged Calls





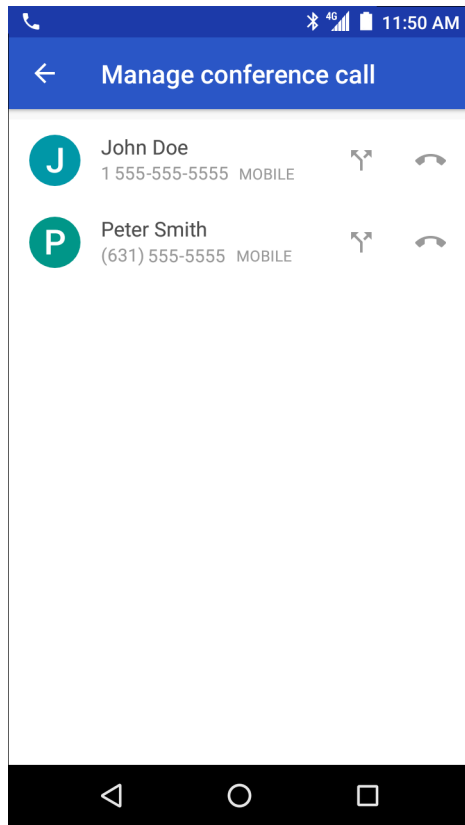


11. Touch  to add another call.
The conference is placed on hold.
12. Touch .
13. Touch the keys to enter another phone number.
14. Touch  below the dialer to initiate the call.
15. Touch  icon to add the third call to the conference.
16. Touch **Manage Conference call** to view all callers.

Figure 60 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

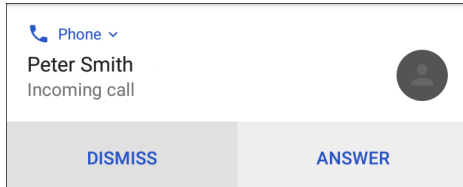
To make a call using a Bluetooth headset:

1. Pair the Bluetooth headset with the device.
2. Press the Call button on the Bluetooth headset.
3. 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.

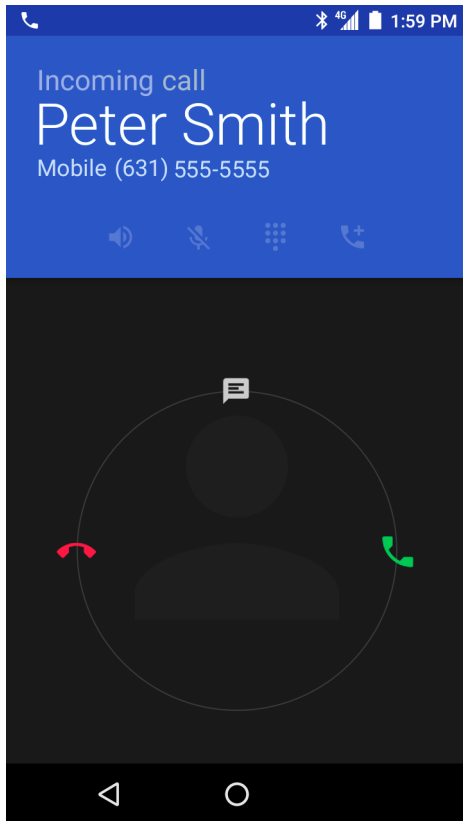
Figure 61 Incoming Call Screen






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 62 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.

To modify options related to the phone call feature, on the Home screen touch  >  > **Settings**.

- **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 device 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 TC56.

Set the TC56 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 TC56 should be at least 30 cm (12 inches) from the TTY device. Placing the TC56 too close to the TTY device may cause high error rates.

- **TTY off** - TTY is off (default).
- **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.

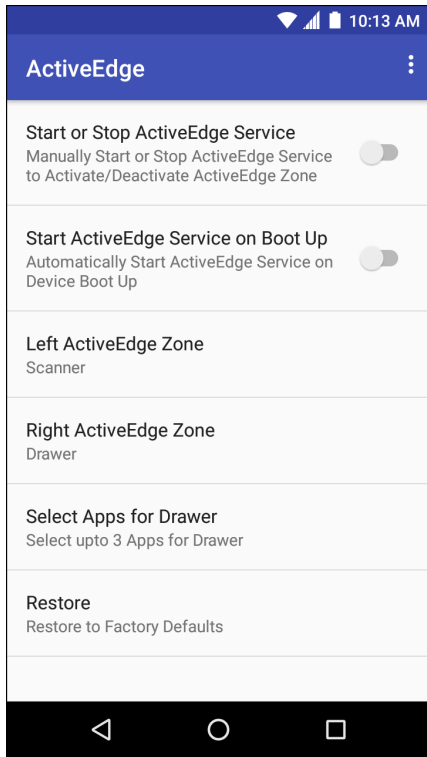
ActiveEdge Touch Zone

The **ActiveEdge Touch Zone** application provides configurable settings which enables quick and convenient one-touch access to key features or applications while users are in the middle of other applications or tasks. Once configured, soft keys near the perimeter of the display provide access to those frequently used applications or functions.



NOTE: The **ActiveEdge Touch Zone** is only available when the display is set to Portrait mode.

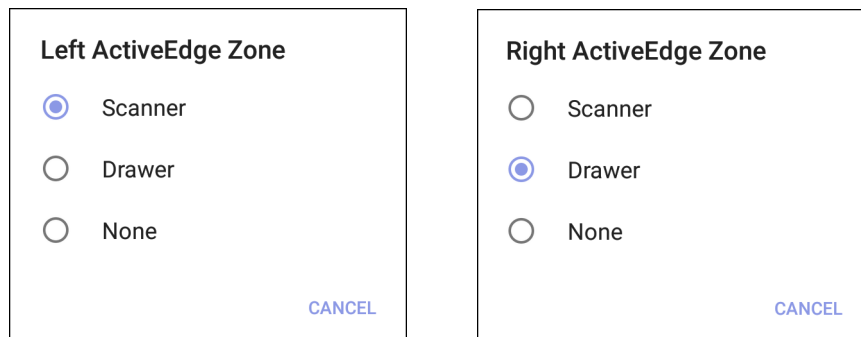
Figure 63 ActiveEdge App Settings



- **Start or Stop ActiveEdge Service** - Touch to start/stop the ActiveEdge Service to enable/disable the ActiveEdge Zone.
- **Start ActiveEdge Service on Boot Up** - Automatically start the ActiveEdge Service when the device boots up. the Service is always running and always available.
- **Left ActiveEdge Zone** - Configure the left ActiveEdge Zone to **Scanner**, **Drawer**, or **None**.
- **Right ActiveEdge Zone** - Configure the right ActiveEdge Zone to **Scanner**, **Drawer**, or **None**.
- **Select Apps for Drawer** - Select up to three applications to appear on the Drawer.
- **Restore** - Restore the settings to the factory defaults.

Select the Settings menu  > **About** to open the **About ActiveEdge** window, which displays the version number.

Figure 64 Left and Right ActiveEdge Zones



NOTE: The **Left ActiveEdge Zone** and the **Right ActiveEdge Zone** can be configured to any combination of **Scanner**, **Drawer**, or **None**, except that both zones cannot be configured to **Drawer**.

If the **Left ActiveEdge Zone** or the **Right ActiveEdge Zone** is set to **Drawer**, select **Select Apps for Drawer** from the Settings menu, select the menu options button **⋮**, choose **Select Apps**, and choose up to three applications to appear on the **Drawer**.

Figure 65 Select Apps for Drawer

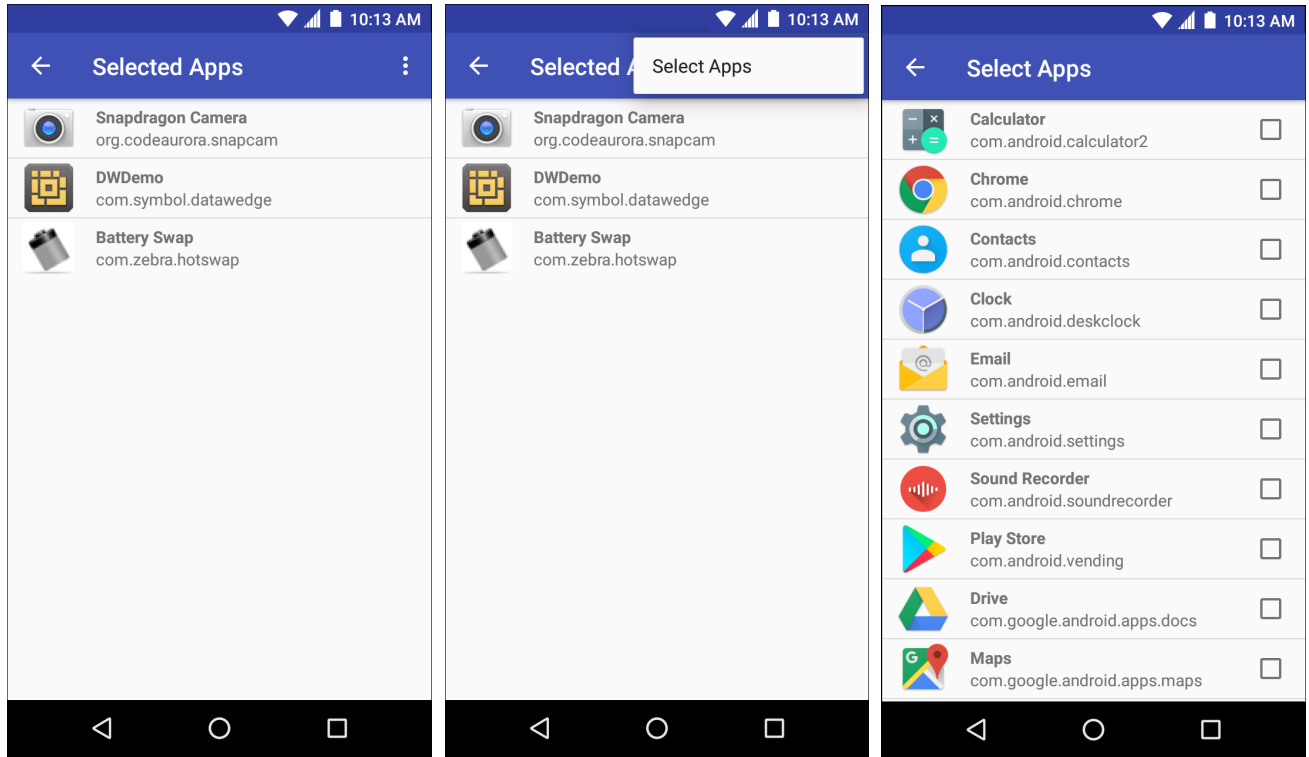


Figure 66 ActiveEdge Touch Zone Soft Key

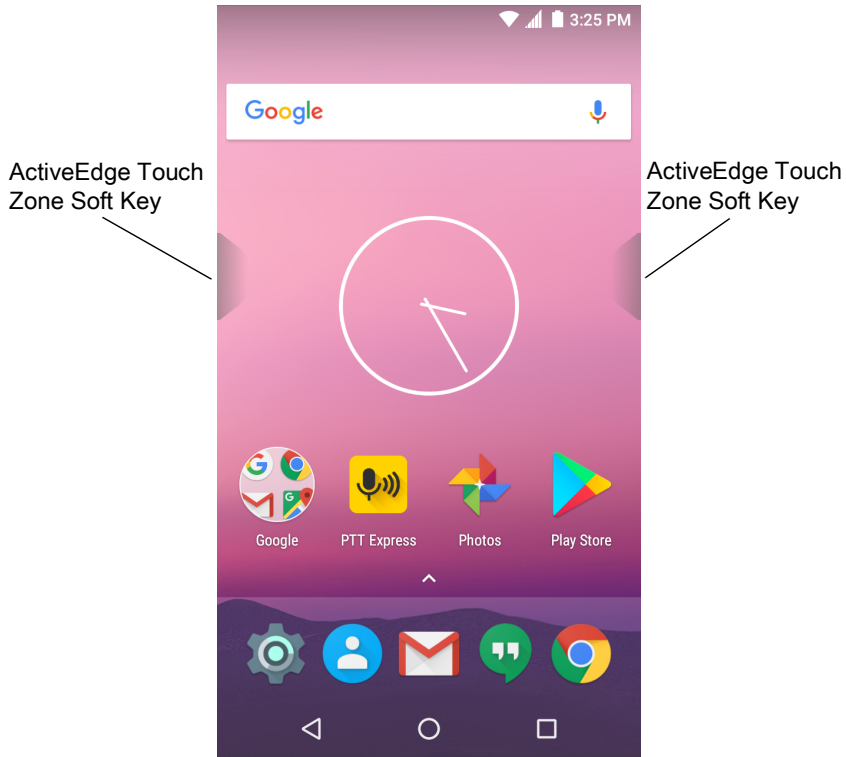
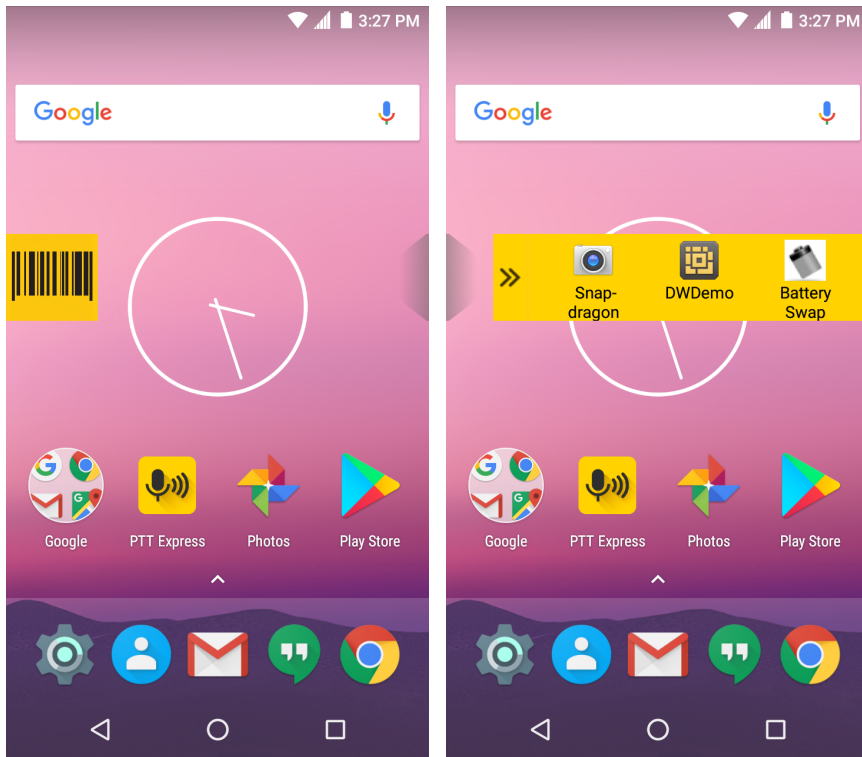


Figure 67 Left ActiveEdge Zone set to Scanner and Right ActiveEdge Zone set to Drawer



Battery Manager

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

Figure 68 Battery Manager Screen

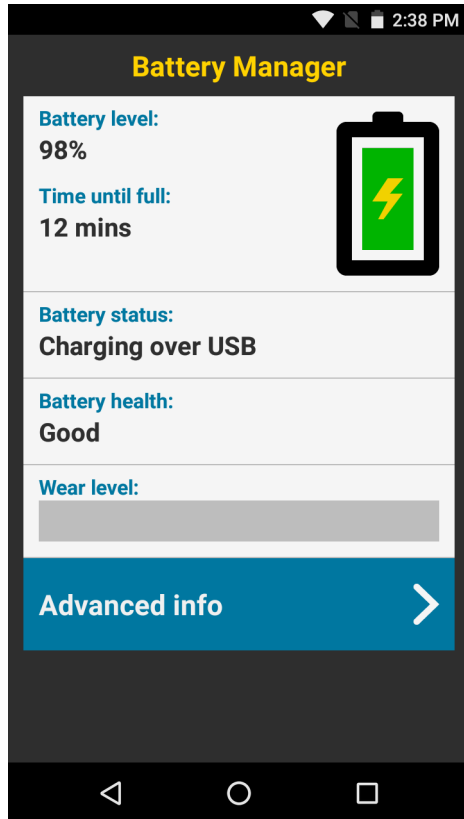






Table 8 Battery Icon Description

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

- **Battery level** - Indicate 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** - Indicates the maximum amount of charge (in mAh) that could be pulled from the battery under the present discharge conditions if the battery is fully charged.
 - **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 Current** - Lists battery current in uA. (Available on builds BSP 19-01.4 and above).
 - **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.
 - **Battery rated capacity** - Lists the battery capacity in mAh.
 - **Battery decommission status** - Indicates if the battery is past it's 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

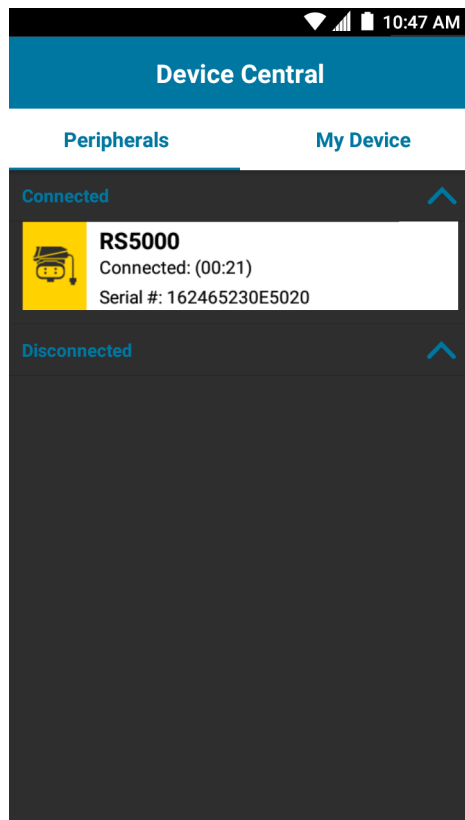
Device Central displays detailed information about the TC56 and connected peripherals and supports the following Zebra devices:

- 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 69 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 91](#).
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

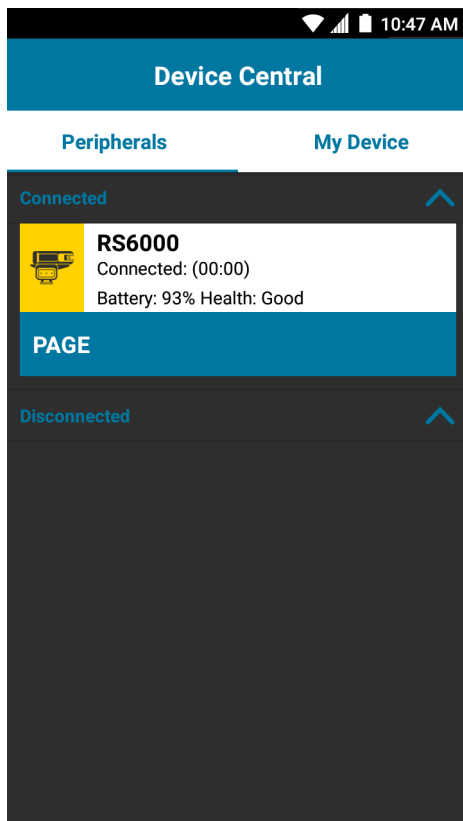
Use the **Page** button to easily locate the currently connected RS6000 Ring Scanner:

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 70 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 71 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

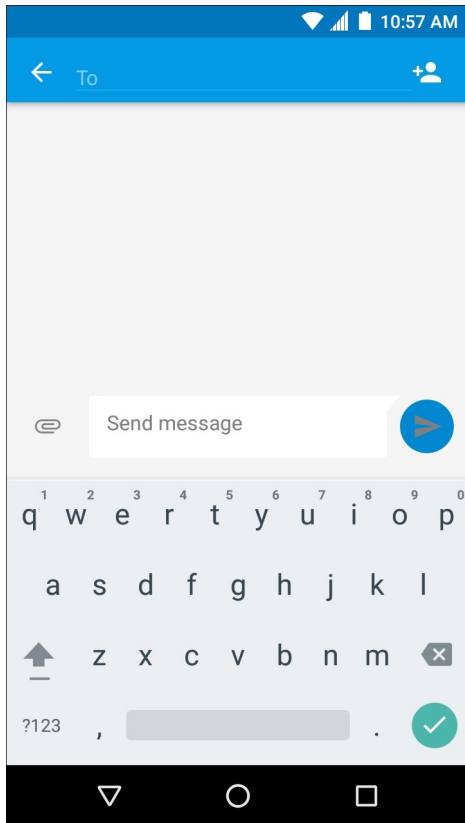
Use Messaging to send and receive SMS and MMS messages.


To open **Messaging**, Swipe up from the bottom of the screen and touch .

Sending a Text Message

1. In the main Messaging screen, touch .

Figure 72 New Text Message Screen



2. In the **To** field, enter a name or a mobile phone number.
3. In the **Send 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 the message.

Sending a Multimedia Message



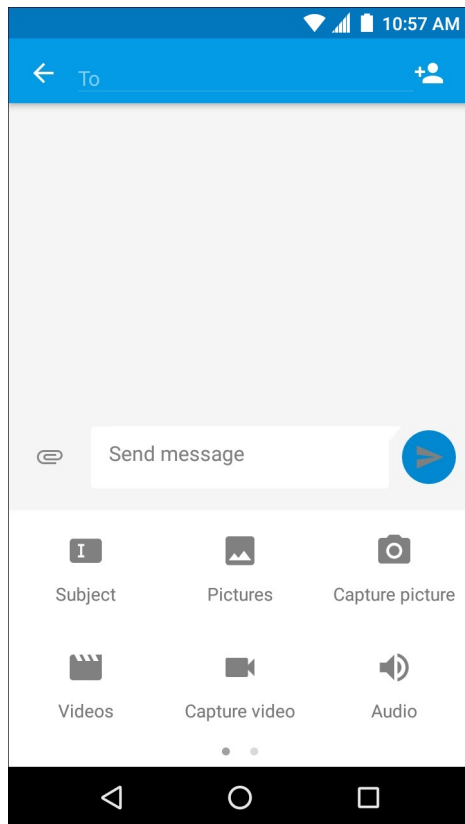

1. In the main Messaging screen, touch .
2. In the **To** field, enter a name or a mobile phone number.
3. Touch  to attach the media file of your choice:


Figure 73 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 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 the 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: **Groups**, **All contacts**, and **Favorites**. 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 the check mark next to **Add New Contact**.

Editing Contacts

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

Deleting Contacts

1. In the **Contacts** application, touch a contact name to delete.
2. Touch .
3. Touch **Delete**.
4. Touch **DELETE** 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 TC56 saves photos and videos on the microSD card. If a microSD card is not installed, the TC56 saves photos and videos on the internal storage.

Taking Photos



NOTE: Camera settings are described in [Photo Settings on page 99](#).



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

Figure 74 Camera Mode



2. If necessary, touch the Camera Mode icon and touch .
3. Frame the subject on the screen.
4. To zoom in or out, press two fingers on the display and pinch or expand fingers. The zoom controls appear on the screen.
5. Touch an area on the screen to focus. The focus circle appears on the screen. The two bars turn green when in focus.

6. 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 75 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 .


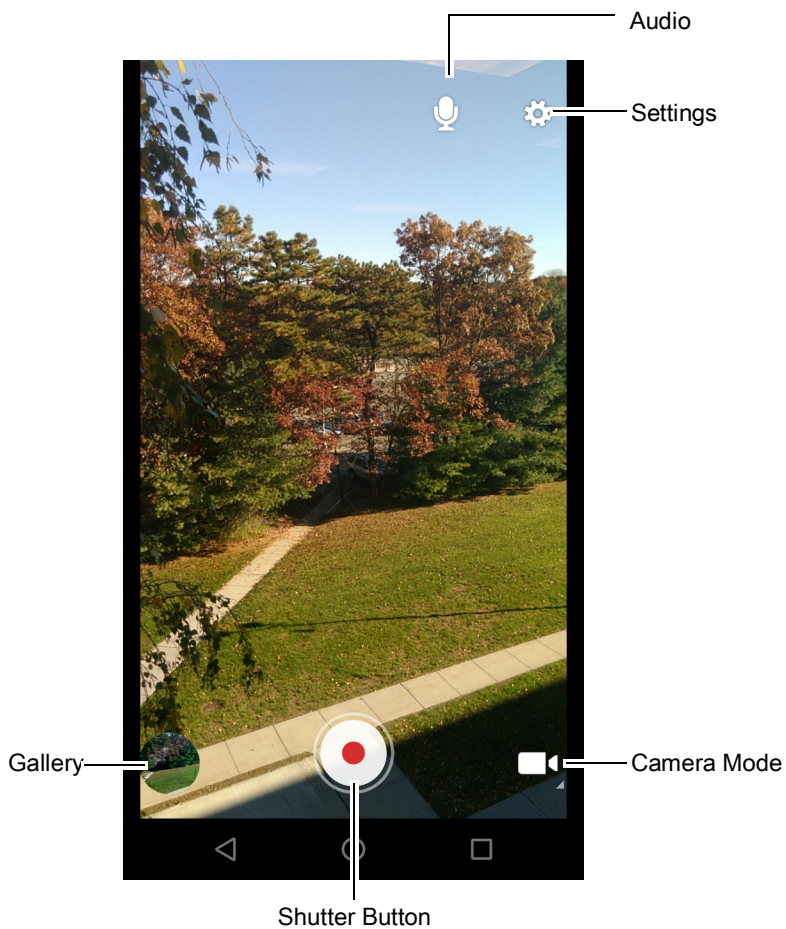
2. Touch the options bar and touch .

Figure 76 Video Mode
















3. Point the camera and frame the scene.
4. To zoom in or out, press two fingers on the display and pinch or expand fingers. The zoom controls appear on the screen.
5. Touch  to start recording.
The device starts recording the video. The video time remaining appears in the top left of the screen.
6. 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.

- **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** - Touch to select the camera focus setting. Options: **Auto**, **Infinity**, **Macro** or **CAF** (Continuous Auto Focus) (default).
- **ZSL** - Set the camera to immediately take a picture when the button is pressed (default – enabled)

Video Settings

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

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 TC56 without GMS 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 open to the **Timeline** view.

Figure 77 Gallery - Timeline View





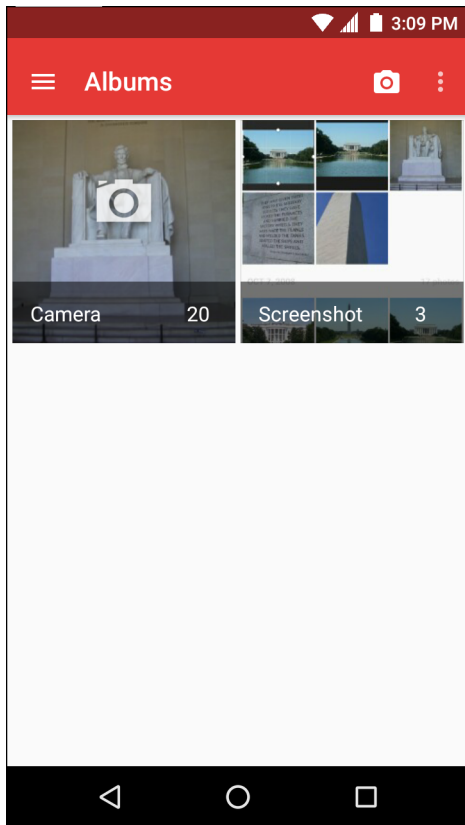
Touch  > **Albums** to view photos sorted by albums or  > **Videos** to view only videos.

Figure 78 Gallery — Albums

- 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 main **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 79 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:


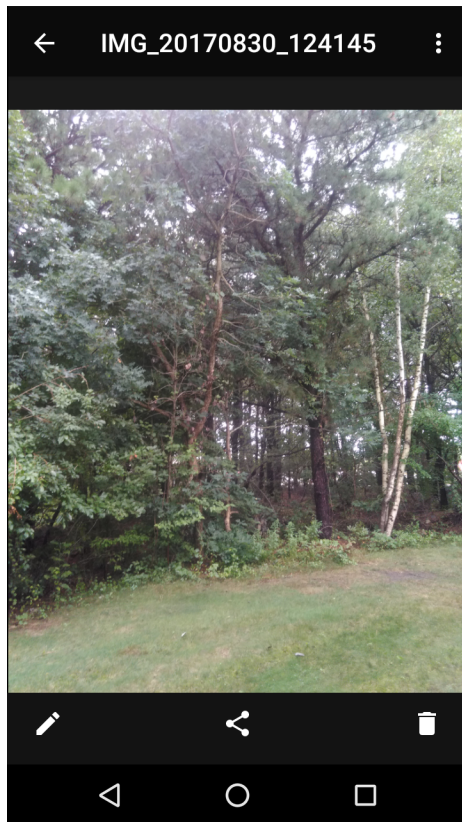
1. Swipe up from the bottom of the Home screen and touch .
2. Touch an album to open it.
3. Touch a photo.

Figure 80 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.




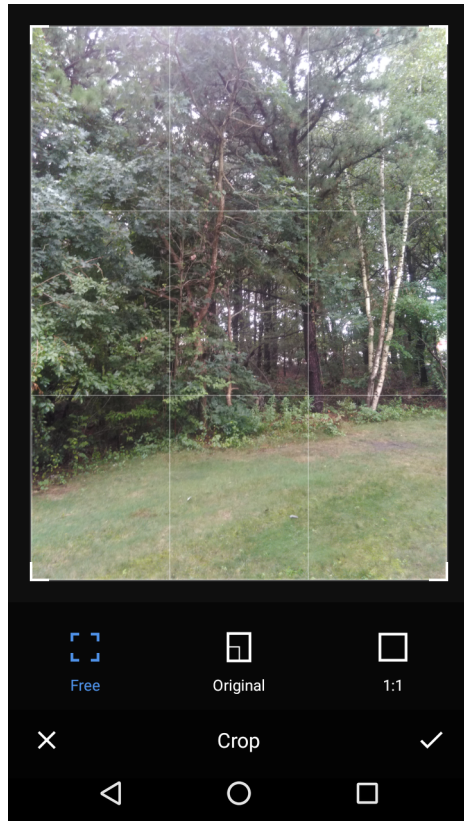


2. Touch  >  > . The cropping tool appears.
3. Use the cropping tool to select the portion of the photo to crop.
 - Drag from the inside of the cropping tool to move it.
 - Drag an edge of the cropping tool to resize it to any proportion.

Figure 81 Cropping Tool





4. Touch the check mark > **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** to delete the video.

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 TC56 with GMS only.

Use Photos to:

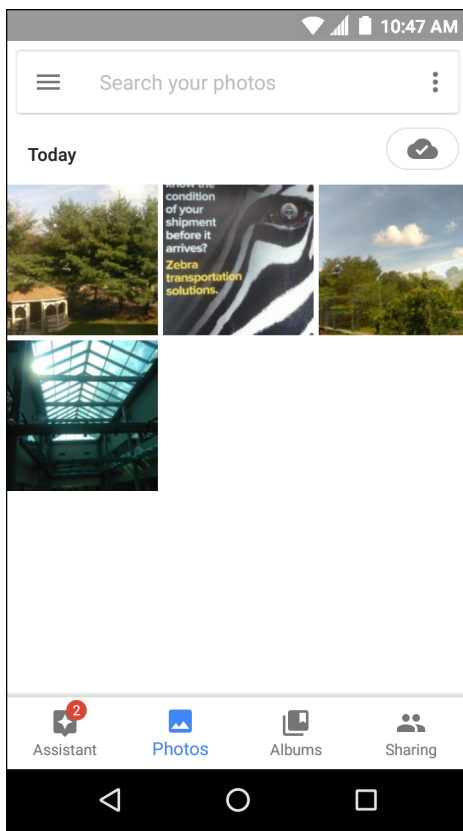
- view photos
- play videos
- perform basic editing of photos
- set photos as wallpaper
- set photos as a contact photo
- share photos and videos.

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

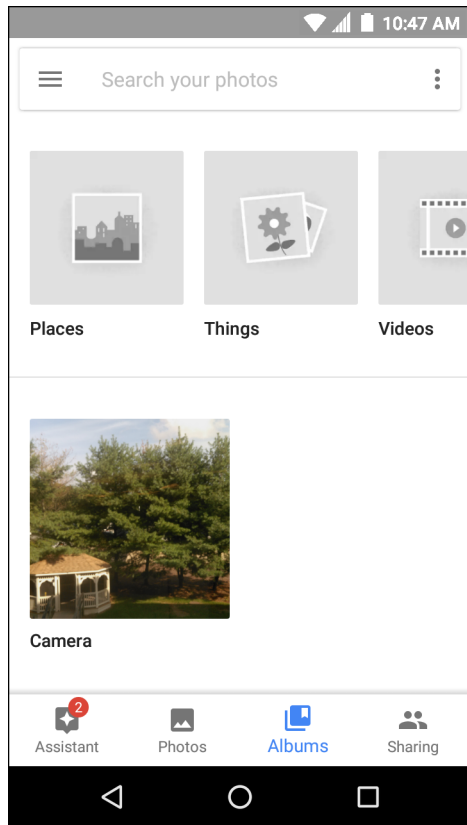
To open the **Photos** application, swipe up from the bottom of the Home screen and touch .

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

Figure 82 Photos View



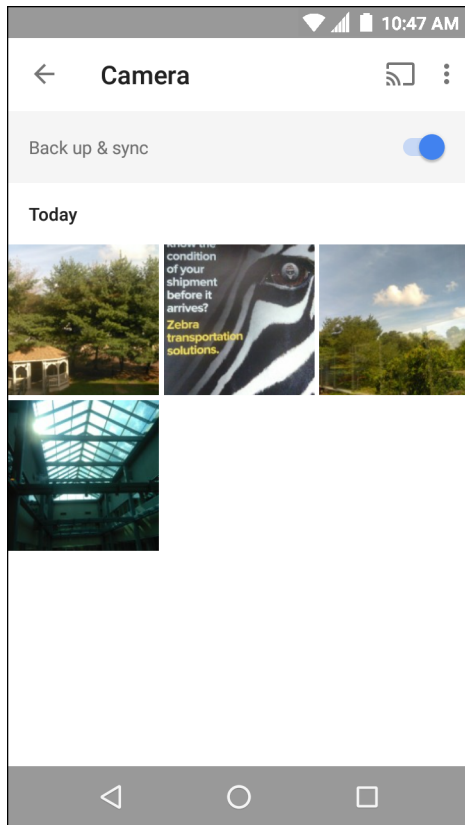
Touch **Albums** to view photos sorted by albums.

Figure 83 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 84 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:


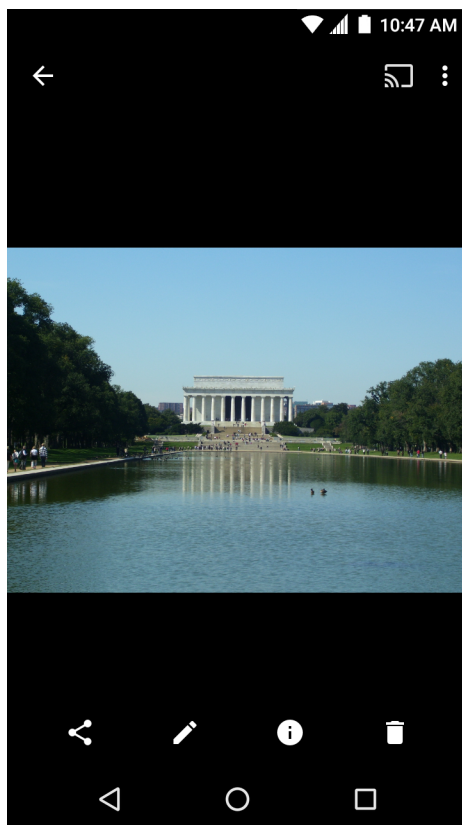

1. Swipe up from the bottom of the Home screen and touch .
2. Touch a photo.

Figure 85 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 86 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 87 DataWedge Demonstration Window

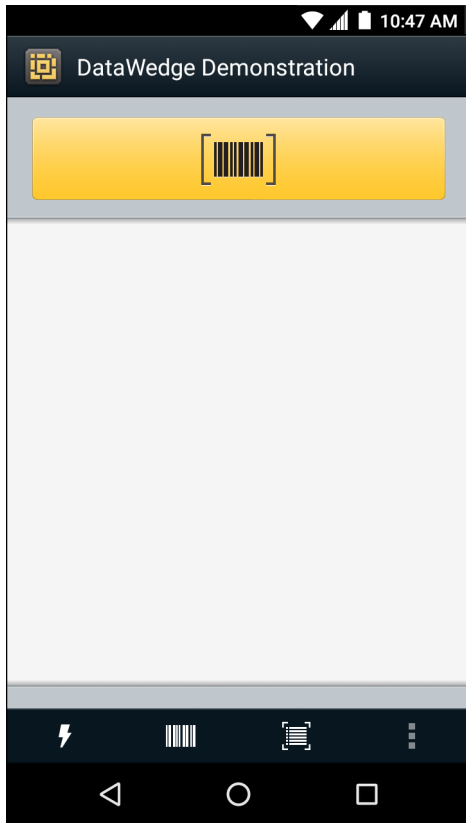


Table 9 DataWedge Demonstration Icons

	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 DS3678, RS507 or RS6000 Bluetooth imager is connected.
		Indicates that an DS3678, RS507 or RS6000 Bluetooth imager is not connected.

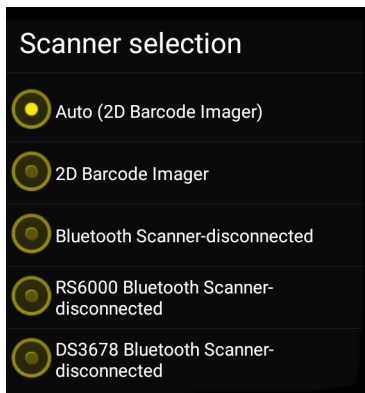
Table 9 DataWedge Demonstration Icons (Continued)

	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 TC56 Touch Computer Integrator Guide for Android Version 7.1.2 for information on DataWedge configuration.

Figure 88 Data Capture Options Menu



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

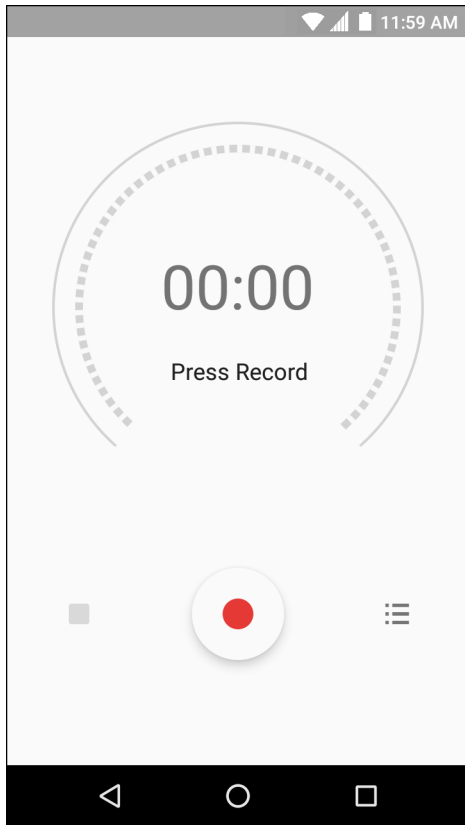
Either press the programmable button or touch the yellow scan button to enable data capture. The captured data appears in the text field below the yellow button.

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 (TC56 without GMS) or the Play Music application (TC56 with GMS).

Figure 89 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 button to start communicating with other voice client users.
- **Private Response:** Double-press and 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 90 PTT Express Default User Interface

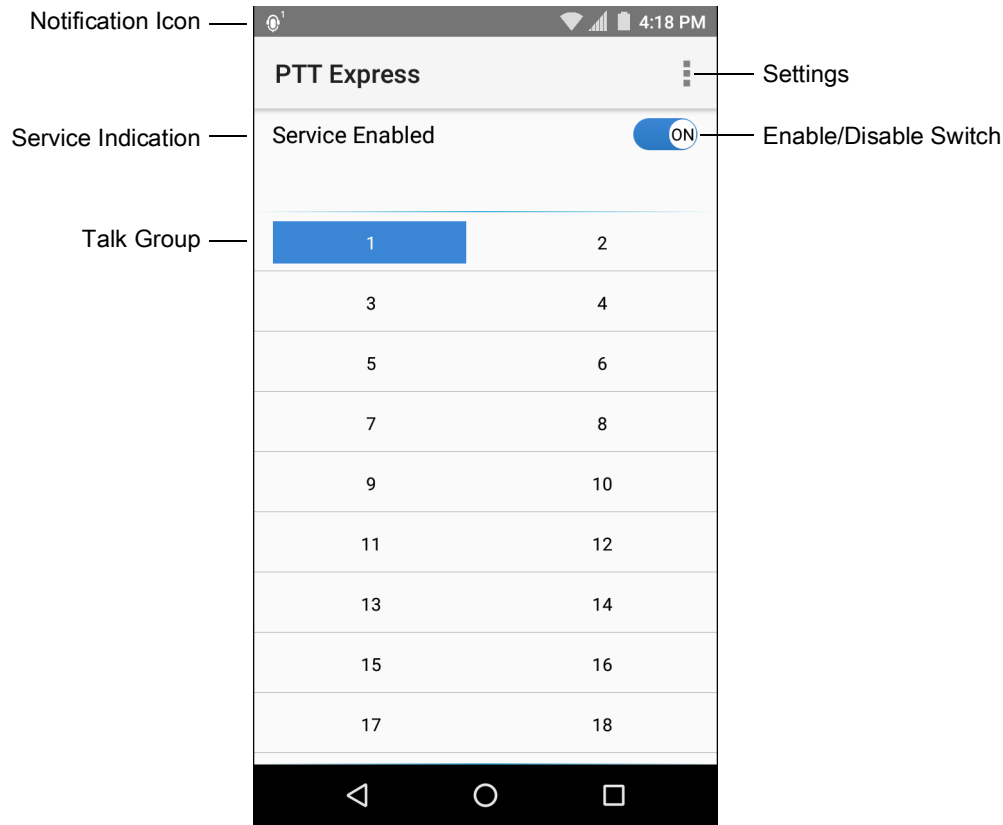









Table 10 PTT Express Default User Interface Descriptions

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.

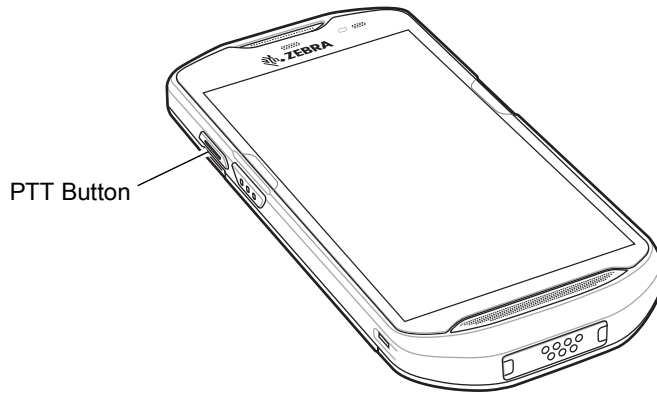
PTT Communication



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 91 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.

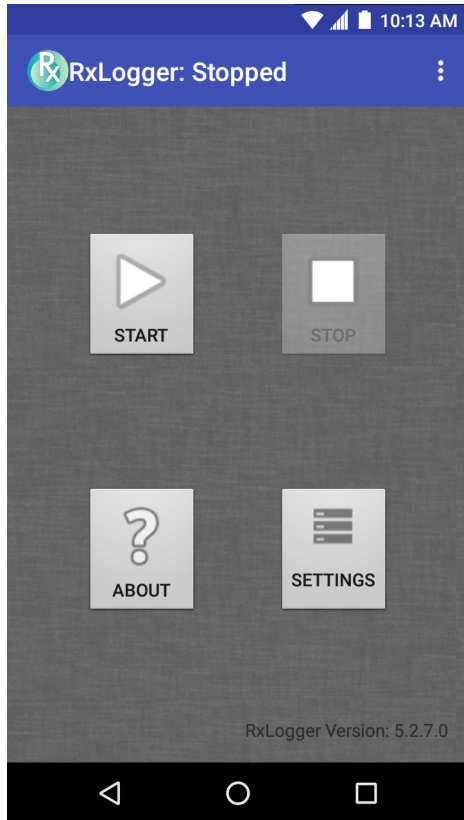
Disabling PTT Express Voice Client Communication

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 92 RxLogger

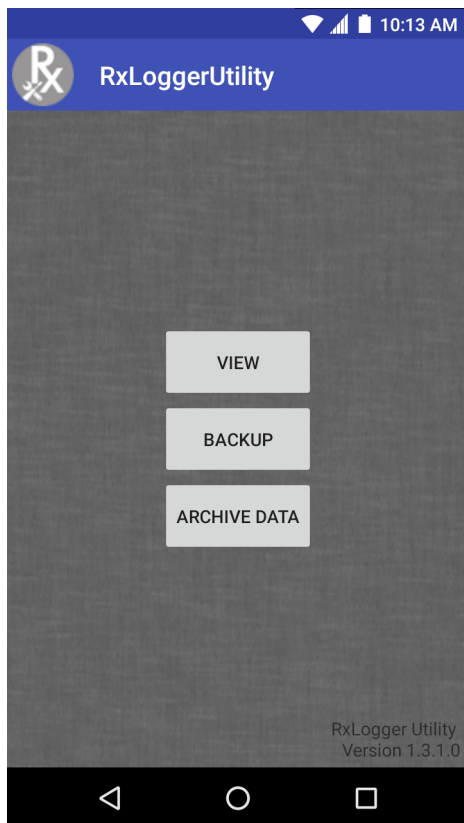


RxLogger Utility

RxLogger Utility is a data monitoring application for viewing logs in the TC56 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 93 RxLogger Utility App View



Refer to the TC56 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 TC56. Use the Diagnostic Tool to troubleshooting the device and determine issues.


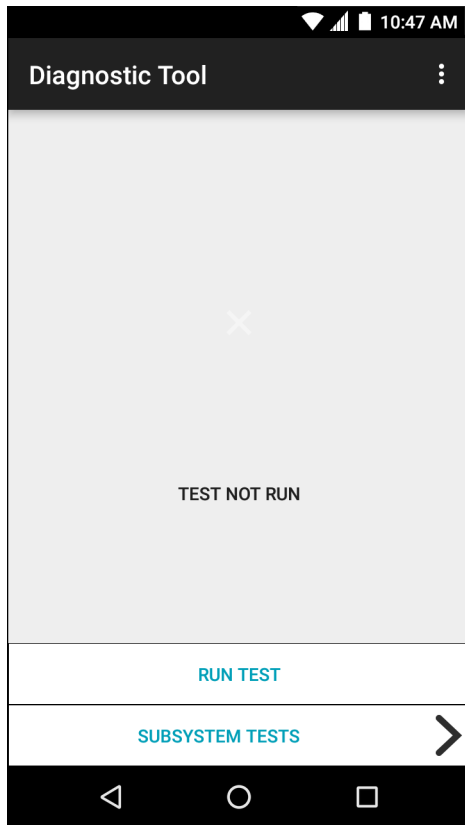
1. Swipe up from the bottom of the Home screen and touch .

Figure 94 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 127](#) to enable subsystem tests.

Figure 95 Test Passed Screen

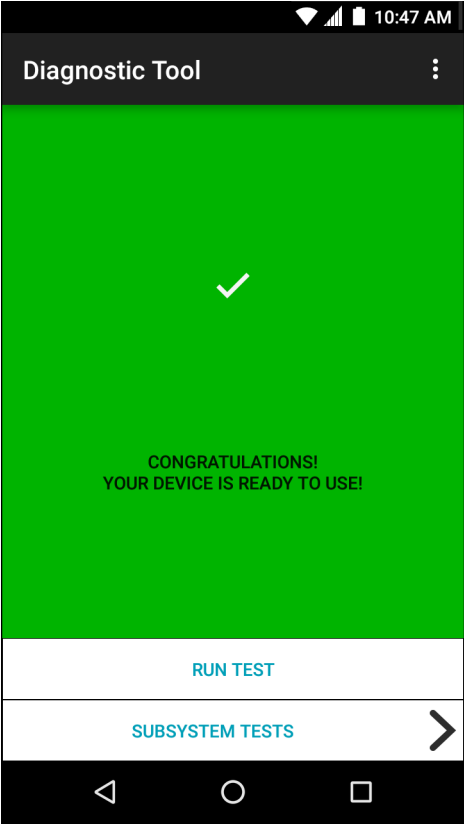
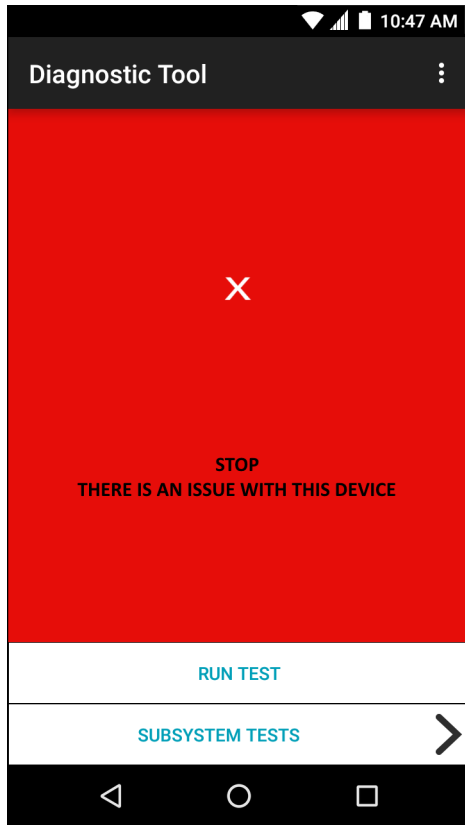


Figure 96 Test Failed Screen



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

Figure 97 Subsystem Screen

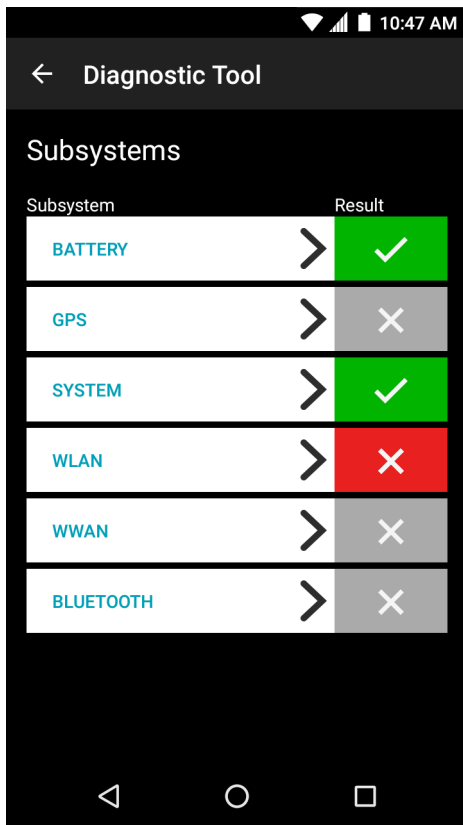



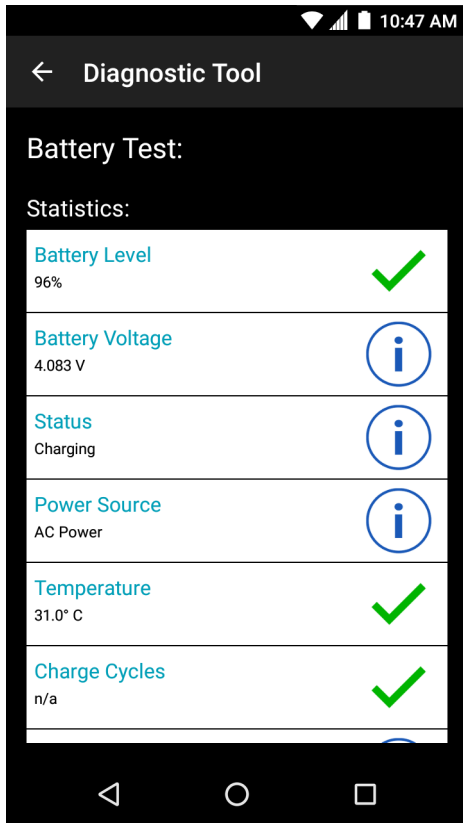


Table 12 Subsystem Test Result Indicators

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 98 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 (TC56 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 (TC56 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.

Data Capture

Introduction

The TC56 supports data capture using:

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

Imaging

The TC56 with an integrated 2D imager has the following features:

- Omnidirectional reading of a variety of bar code 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 bar code, stores the resulting image in its memory, and executes state-of-the-art software decoding algorithms to extract the bar code data from the image.

Operational Modes

The TC56 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 TC56 attempts to locate and decode enabled bar codes 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 bar code.



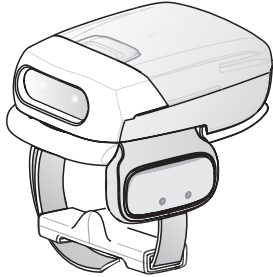
NOTE: To enable Pick List Mode, configure in DataWedge or set in an application using a API command.

- **Pick List Mode:** This mode allows the user to selectively decode a bar code when more than one bar code is in the TC56's field of view. To accomplish this, move the aiming crosshair or dot over the required bar code to decode only this bar code. This feature is ideal for pick lists containing multiple bar codes and manufacturing or transport labels containing more than one bar code type (either 1D or 2D).

RS507 Hands-Free Imager

The RS507 Hands-free Imager is a wearable bar code scan solution for both 1D and 2D bar code symbologies.

Figure 99 RS507 Hands-Free Imager

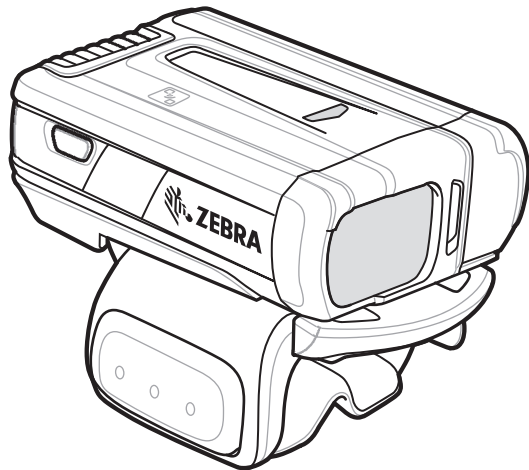


Refer to the RS507 Hands-free Imager Product Reference Guide for more information.

RS6000 Bluetooth Ring Scanner

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

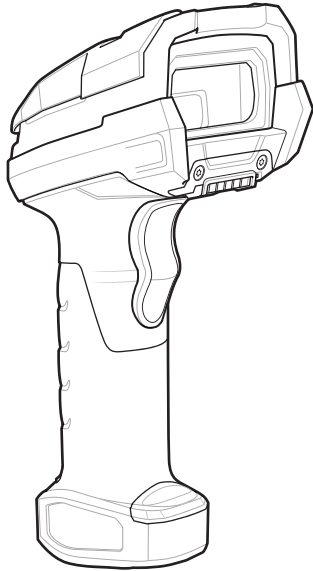
Figure 100 RS6000 Bluetooth Ring Scanner



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 bar code scanning performance and advanced ergonomics in a lightweight design.

Figure 101 DS3678 Digital Scanner

Refer to the DS36X8 Digital Scanner Product Reference Guide for more information.

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 bar code. This range varies according to bar code 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 bar codes being scanned.
- **Angle:** Scanning angle is important for promoting quick decodes. When laser beams reflect directly back into the scanner from the bar code, this specular reflection can “blind” the scanner. To avoid this, scan the bar code 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 TC56 farther away for larger symbols
- Move the TC56 closer for symbols with bars that are close together.



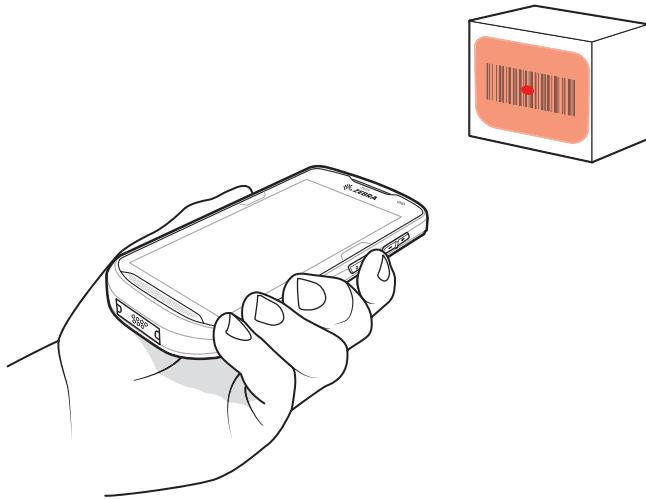
NOTE: Scanning procedures depend on the application and TC56 configuration. An application may use different scanning procedures from the one listed above.

Bar Code Scanning with Internal Imager

To read a bar code, a scan-enabled application is required. The TC56 contains the DataWedge application that allows the user to enable the imager, decode the bar code data and display the bar code content.

1. Ensure that an application is open on the TC56 and a text field is in focus (text cursor in text field).
2. Point the exit window on the top of the TC56 at a bar code.

Figure 102 Imager Scanning



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



NOTE: When the TC56 is in Picklist mode, the imager does not decode the bar code until the crosshair or aiming dot touches the bar code.

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

Figure 103 Aiming Pattern

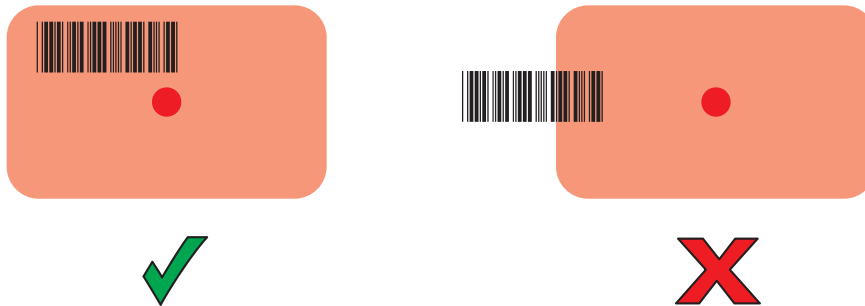
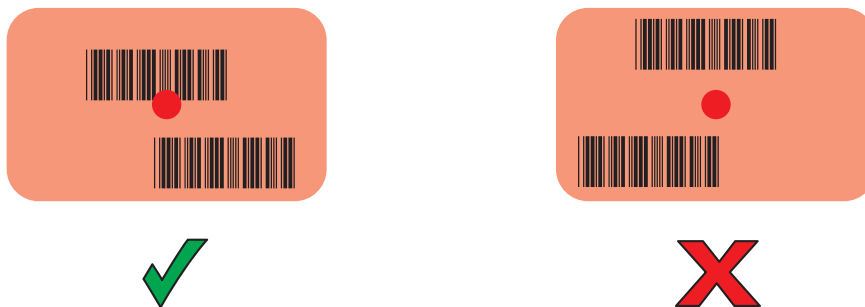


Figure 104 Pick List Mode with Multiple Bar Codes in Aiming Pattern



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



NOTE: Imager decoding usually occurs instantaneously. The TC56 repeats the steps required to take a digital picture (image) of a poor or difficult bar code as long as the scan button remains pressed.

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

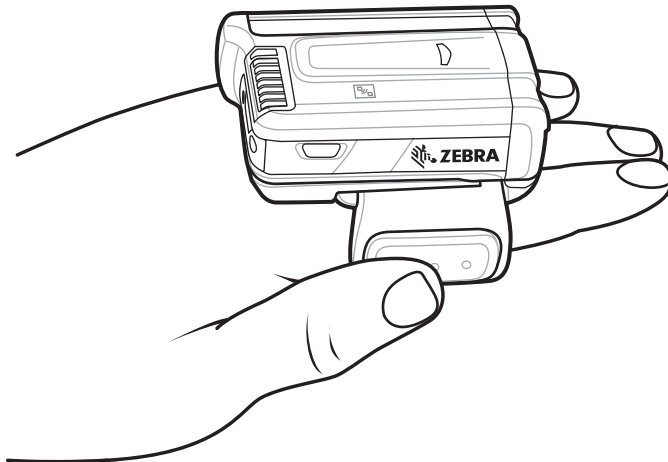
Bar Code Capture with RS6000 Bluetooth Ring Scanner

To read a bar code, a scan-enabled application is required. The TC56 contains the **DataWedge** application that allows the user to enable the scanner to decode bar code data and display the bar code content. See [DataWedge Demonstration on page 114](#) for more information on launching DataWedge.

Pair the RS6000 with the TC56. See [Pairing Using Simple Serial Interface on page 139](#) or [Pairing Using Bluetooth Human Interface Device on page 140](#) 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 bar code.

Figure 105 Bar Code Scanning with RS6000



3. Press and hold the trigger.

The red laser aiming pattern turns on to assist in aiming. Ensure the bar code 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 bar code was decoded successfully. Note that when the RS6000 is in Pick List Mode, the RS6000 does not decode the bar code until the center of the crosshair touches the bar code.

Figure 106 Aiming Pattern

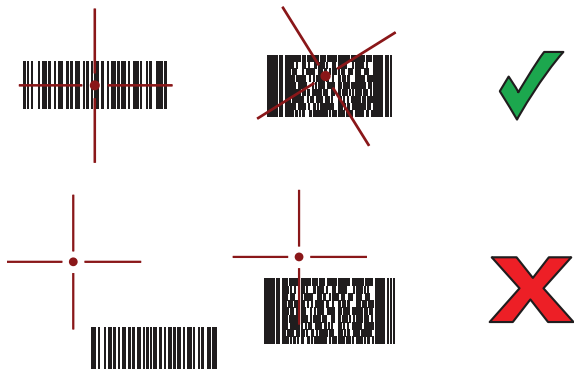


Figure 107 Pick List Mode with Multiple Bar Codes in Aiming Pattern



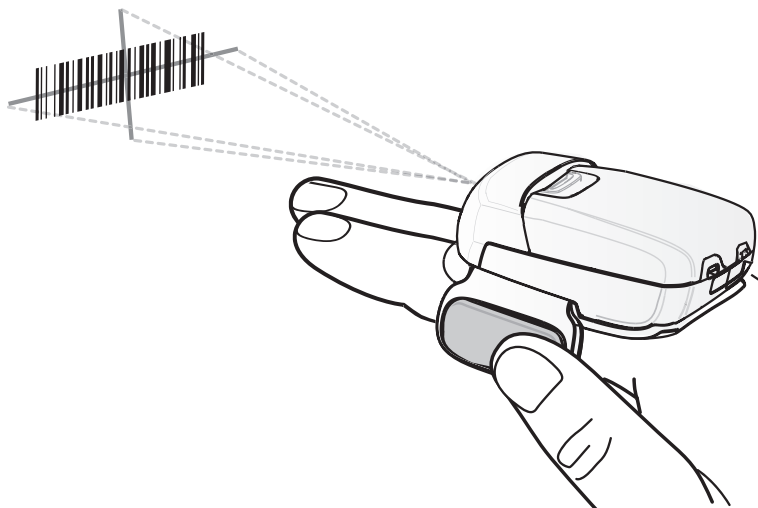
4. The captured data appears in the text field.

Bar Code Capture with RS507 Hands-Free Imager

Pair the RS507 with the TC56. See [Pairing the RS507/RS6000 Hands-Free Imager on page 137](#) 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 bar code.

Figure 108 Bar Code Scanning with RS507



3. Press and hold the trigger.

The red laser aiming pattern turns on to assist in aiming. Ensure the bar code 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 bar code was decoded successfully. Note that when the RS507 is in Pick List Mode, the RS507 does not decode the bar code until the center of the crosshair touches the bar code.

Figure 109 Aiming Pattern

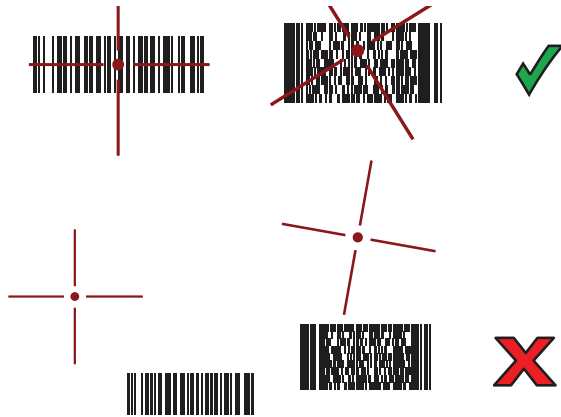


Figure 110 Pick List Mode with Multiple Bar Codes in Aiming Pattern

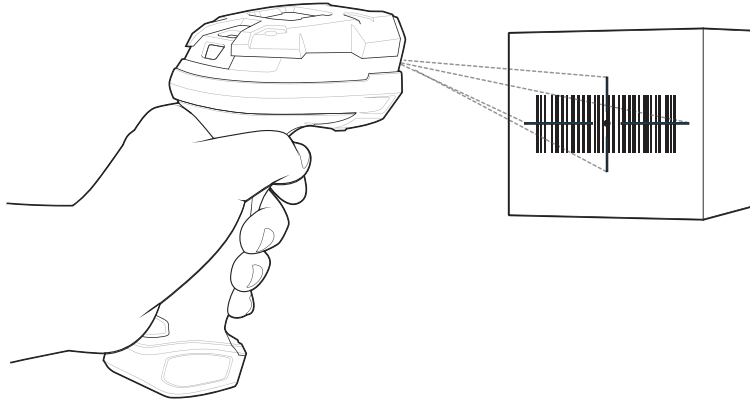


4. The captured data appears in the text field.

Bar Code Capture with DS3678 Bluetooth Scanner

Pair the DS3678 with the TC56. See [Pairing the DS3678 Digital Scanner on page 141](#) 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 bar code.

Figure 111 Bar Code Scanning with DS3678-HP

3. Press and hold the trigger.

Upon successful decode, the scanner beeps and the LED displays a single green flash.

Note that when the DS3678 is in Pick List Mode, the scanner does not decode the bar code until the center of the crosshair touches the bar code.

Figure 112 Aiming Pattern**Figure 113** Pick List Mode with Multiple Bar Codes 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 TC56, 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 TC56 provides the ability to pair the RS6000 using NFC.

✓ **NOTE:** RS6000 only.

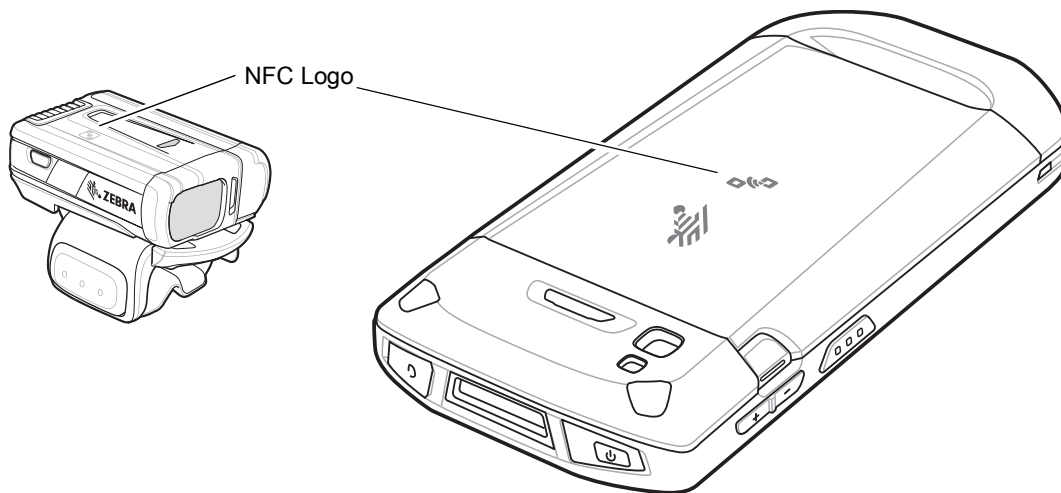
1. Ensure that the RS6000 is in SSI mode. Refer to the RS6000 User Guide for more information.
2. Ensure that NFC is enabled on the TC56.
3. Align the NFC icon on the RS6000 with the NFC icon on the TC56 battery.


The Status LED blinks blue indicating that the RS6000 is attempting to establish connection with the TC56. 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 TC56 screen.

The  icon appears in the Status bar.

Figure 114 Align NFC Antennas



The TC56 pairs with the RS6000 and  appears in the Status bar.

✓ **NOTE:** Not all Zebra device support NFC readers and the Tap-to-Pair feature.

Pairing in HID Mode Using Near Field Communication

The TC56 provides the ability to pair the RS6000 in HID Mode using NFC.

✓ **NOTE:** RS6000 only.

1. Ensure that NFC is enabled on the TC56.
2. Ensure that Bluetooth is enabled on both devices.

3. Ensure that the Bluetooth device to discover is in discoverable mode.
4. Ensure that the two devices are within 10 meters (32.8 feet) of one another.
5. Place the RS6000 in Human Interface Device (HID) mode. If the RS6000 is already in HID mode, skip to step 5.
 - 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 bar code below to place the RS6000 in HID mode.

Figure 115 Bluetooth HID Bar Code



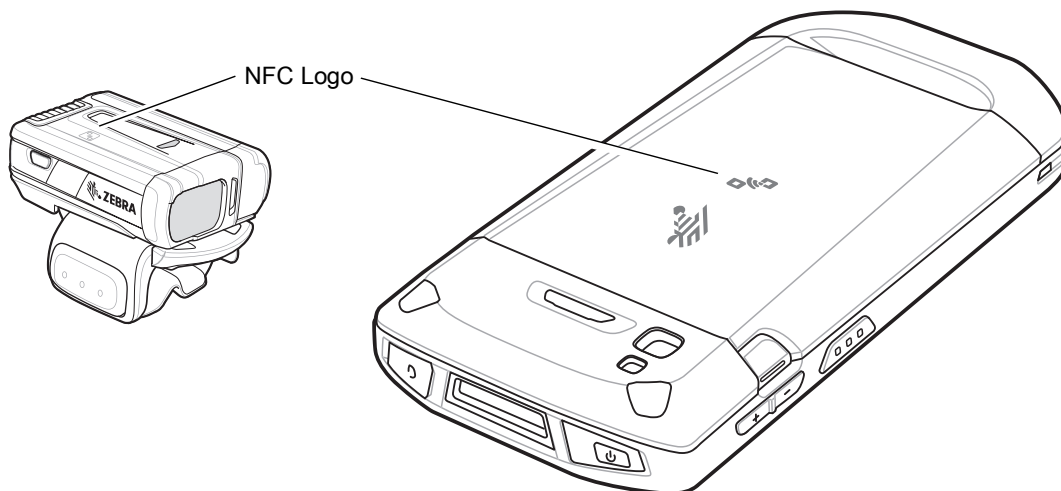
6. Remove the battery from the RS6000.
7. Re-install the battery into the RS6000.
8. Align the NFC icon on the RS6000 with the NFC icon on the TC56.

The Status LED blinks blue indicating that the RS6000 is attempting to establish connection with the TC56. 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 TC56 screen.

The **A** icon appears in the Status bar.

Figure 116 Align NFC Antennas



The TC56 pairs with the RS6000 and **A** appears in the Status bar.

✓ **NOTE:** Not all Zebra device support NFC readers and the Tap-to-Pair feature.

Pairing Using Simple Serial Interface

To pair the RS507/RS6000 with the TC56 using SSI:




1. Ensure that the two devices are within 10 meters (32.8 feet) of one another.
2. Install the battery into the RS507/RS6000.
3. On the TC56, swipe up from the bottom of the Home screen and touch .

Figure 117 Bluetooth Pairing Utility



4. Using the RS507/RS6000, scan the bar code 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 TC56. 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 TC56 screen and the  icon appears in the Status bar.
5. On the TC56, touch .

Pairing Using Bluetooth Human Interface Device



To pair the RS507/RS6000 with the TC56 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 bar code below to place the RS507/RS6000 in HID mode.

Figure 118 Bluetooth HID Bar Code



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 device begins searching for discoverable Bluetooth devices in the area and displays them under **AVAILABLE DEVICES**.
10. Scroll through the list and select RS507/RS6000.

The device 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 TC56 using Bluetooth Human Interface Device (HID) Mode.

Pairing Using Simple Serial Interface

To pair the DS3678 with the TC56 using SSI:




1. Ensure that the two devices are within 10 meters (32.8 feet) of one another.
2. Install the battery into the DS3678.
3. On the TC56 swipe up from the bottom of the Home screen and touch  .

Figure 119 Bluetooth Pairing Utility



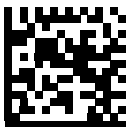
4. Using the DS3678, scan the bar code on the screen.
The DS3678 emits a high/low/high/low beeps. The Scan LED flashes green indicating that the DS3678 is attempting to establish connection with the TC56. When connection is established, the Scan LED turns off and the DS3678 emits one string of low/high beeps.
5. On the TC56 touch .



Pairing Using Bluetooth Human Interface Device

To pair the DS3678 with the TC56 using HID:

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

Figure 120 HID Bluetooth Classic Bar Code



4. On the TC56, 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 device 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 device 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 bar code scanning capability to any application without writing code. It runs in the background and handles the interface to built-in bar code scanners. The captured bar code 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 TC56 Touch Computer Integrator Guide for Android Version 7.1.2.

Enabling DataWedge

1. Swipe up from the bottom of the Home screen and touch .
2. Touch .
3. Touch **Settings**.
4. Touch the **DataWedge enabled** checkbox. A blue checkmark appears in the checkbox indicating that DataWedge is enabled.
5. Touch .

Disabling DataWedge

1. Swipe up from the bottom of the Home screen and touch .
2. Touch .
3. Touch **Settings**.
4. Touch the **DataWedge enabled** checkbox. The blue checkmark disappears from the checkbox indicating that DataWedge is disabled.
5. 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

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

- Sharing a data connection
- Changing Cellular Network settings
- Locking a SIM card
- Monitoring data usage.

Sharing the Mobile Data Connection

The **tethering & portable hotspot** settings allow you to share your data connection. You can share the TC56'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 TC56 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 TC56 to a host computer with the USB cable.

The notification **USB charging this device** appears in the Notifications panel.

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** switch to enable.


The host computer is now sharing the TC56'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 TC56 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**.
4. Touch **Tethering & portable hotspot**.
5. Touch the **Bluetooth tethering** switch to enable.


The host computer is now sharing the TC56'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**.
3. Touch **Tethering & portable hotspot**.
4. Touch the **Portable Wi-Fi hotspot** switch to enable.

After a moment, the TC56 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**.
3. Touch **Tethering & portable hotspot**.
4. Touch **Set up Wi-Fi hotspot**.

Figure 121 Set up Wi-Fi Hotspot Dialog Box

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



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

10. 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


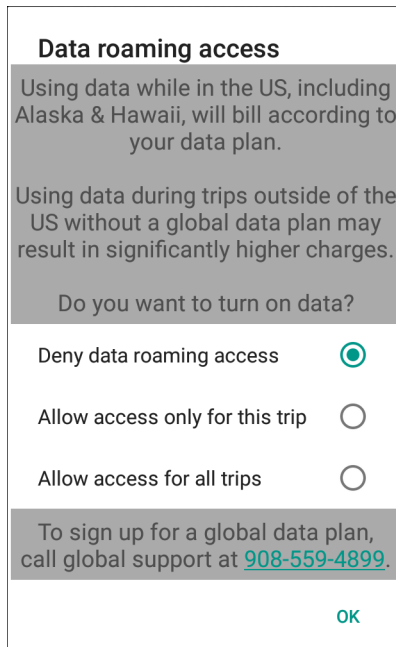

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch ... **More** > **Cellular networks** > **Data roaming access**.

Figure 122 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**.
3. Touch **Cellular Networks**.
4. 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**.
3. Touch **Cellular networks**.
4. Touch **Access Point Names**.
5. Touch an APN name in the list to edit an existing APN or touch  to create a new APN.
6. Touch each APN setting and enter the appropriate data obtained from the wireless service provider.
7. When finished, touch .
8. Touch **Save**.
9. Touch the radio button next to the APN name to start using it.
10. 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.



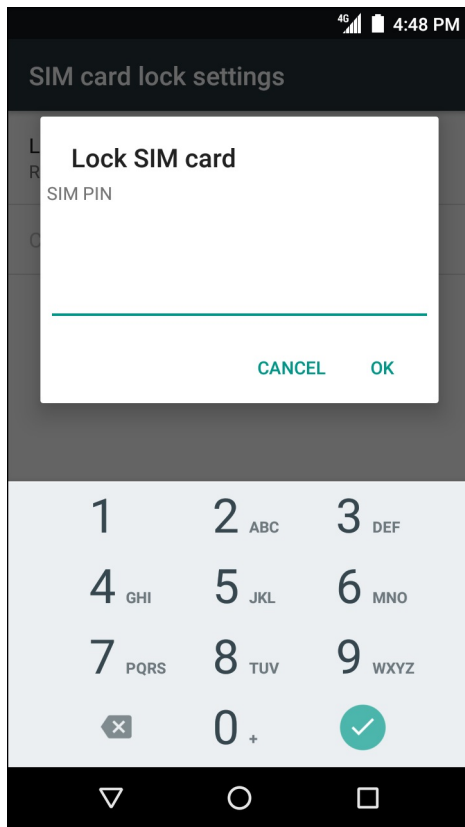

1. Swipe down with two fingers from the status bar to open the quick access panel and then touch .
2. Touch  **Security**.
3. Touch **Set up SIM card lock**.
4. Touch **Lock SIM card**.

Figure 123 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 TC56 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 .



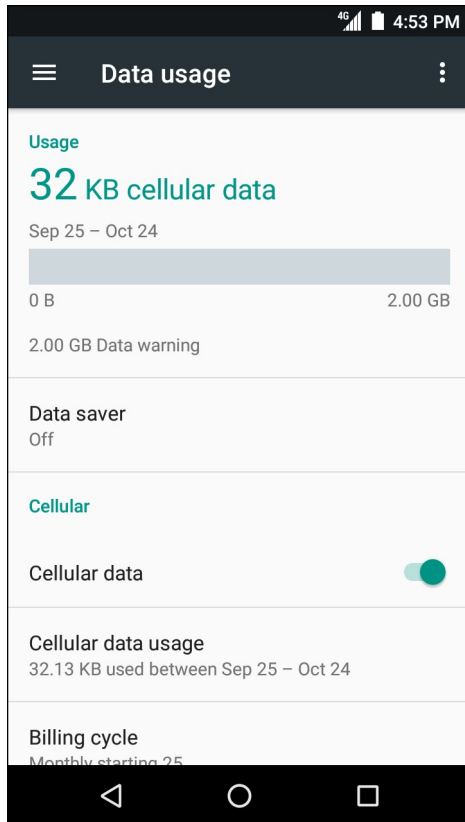
CAUTION: The usage displayed on the data usage settings screen is measured by your device. Your carrier's data usage accounting may differ. Usage in excess of your carrier plan's data limits can result in steep overage charges. The feature described here can help you track your usage, but is not guaranteed 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 124 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 Data Limit

To set a data usage limit:

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 TC56 to communicate wirelessly inside a building. Before using the TC56 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 TC56 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 TC56 to match the security scheme.

The TC56 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](#) for more information.

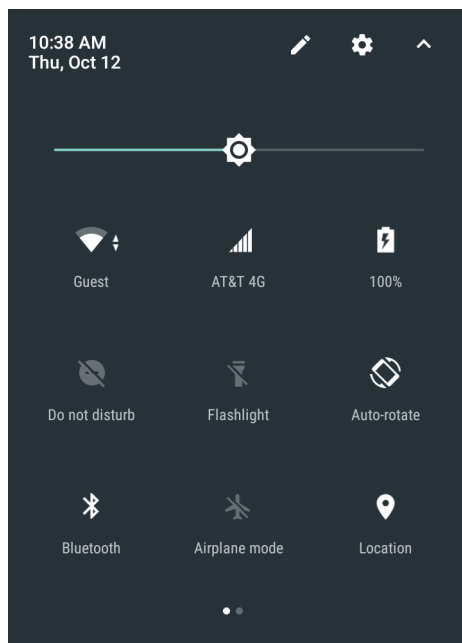


NOTE: Turn off Wi-Fi when not using it, to extend the life of the battery.

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 125 Quick Access Panel



2. Touch **WLAN** to open the **WLAN** screen. The TC56 searches for WLANs in the area and lists them.

Figure 126 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 TC56 obtains a network address and other required information from the network using the dynamic host configuration protocol (DHCP) protocol. To configure the TC56 with a fixed internet protocol (IP) address, Refer to the TC56 Touch Computer Integrator Guide for Android Version 7.1.2.

5. In the Wi-Fi setting field, **Connected** appears indicating that the TC56 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 TC56 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.
- Symbol Serial Interface (SSI) - Allows for communication with RS507 Bluetooth Imager.

Bluetooth Power States

The Bluetooth radio is off by default.

- Suspend - When the TC56 goes into suspend mode, the Bluetooth radio stays on.
- Airplane Mode - When the TC56 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 **Done**.
4. 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 **Done**.
4. Touch .


Discovering Bluetooth Device(s)




The TC56 can receive information from discovered devices without pairing. However, once paired, the TC56 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 TC56 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 TC56 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 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 **Use for**, 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 smart card. The technology is based on ISO/IEC 14443 type A and B (proximity) and ISO/IEC 15693 (vicinity) standards, using the HF 13.56 MHz unlicensed band. The TC56 support 3 operating modes:

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

Using NFC, the TC56 can:

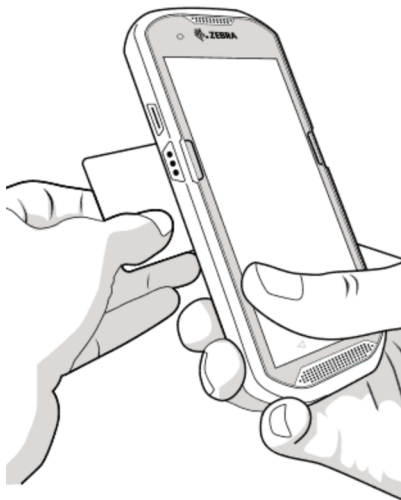
- Read contactless cards such as contactless tickets, ID cards and ePassport.
- Read and write information to contactless cards such as SmartPosters and tickets, as well as devices with NFC interface such as vending machines.
- Read information from supported medical sensors.
- Pair with supported Bluetooth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

The TC56 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 127 Reading Cards



3. Move TC56 close to the NFC card until the TC56 detects the card.
4. Hold the card steadily until the transaction is complete (usually indicated by the application).

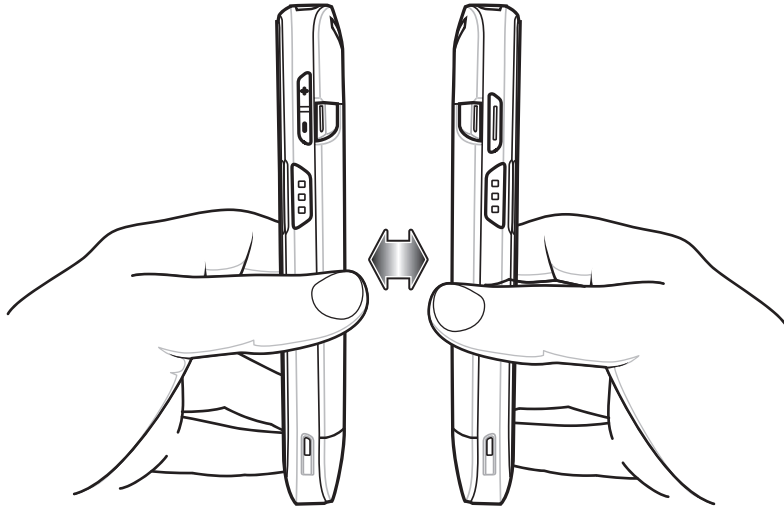
Sharing Information Using NFC

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 back of the TC56 toward the back of the other device.

Figure 128 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 TC56.

Table 13 TC56 Accessories

Accessory	Part Number	Description
Cradles		
1-Slot USB/Charge Only Cradle Kit	CRD-TC56-1SCU-01	Provides device charging and communication. Includes cradle, power supply (PWR-BGA12V50W0WW) and DC line cord.
4-Slot Charge Only Cradle with Battery Charger Kit	CRD-TC56-5SC4B-01	Charges up to four devices and four spare batteries. Includes cradle, power supply (PWR-BGA12V108W0WW) and DC line cord
5-Slot Charge Only Cradle Kit	CRD-TC56-5SCHG-01	Charges up to five devices. Includes, cradle, power supply (PWR-BGA12V108W0WW) and DC line cord. Can accommodate one 4-Slot Battery Charger using the Battery Adapter Cup.
5-Slot Ethernet Cradle Kit	CRD-TC56-5SETH-01	Provides device charging and provides Ethernet communication for up to five devices. Includes cradle, power supply (PWR-BGA12V108W0WW) and DC line cord. Can accommodate one 4-Slot Battery Charger using the Battery Adapter Cup.
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.

Table 13 TC56 Accessories (Continued)

Accessory	Part Number	Description
Batteries and Chargers		
PowerPrecision battery	BTRY-TC56-43MA1-01 BTRY-TC56-43MA1-10	Replacement battery (single pack). Replacement battery (10-pack).
4-Slot Battery Charger Kit	SAC-TC56-4SCHG-01	Charges up to four battery packs. Includes cradle, power supply (PWR-BGA12V50W0WW) and DC line cord.
Vehicle Solutions		
Cigarette Light Adapter Auto Charge Cable	CHG-AUTO-USB1-01	Provides power to the device from a cigarette lighter socket.
TC56 Vehicle Communication Charging Cradle	CRD-TC56-UVCD1-01	Provides power for operating the TC56 when connected to the optional USB I/O Hub and securely holds the device.
TC56 Charge Only Vehicle Cradle	CRD-TC56-CVCD1-01	Charges and securely holds the device. Requires power cable CHG-AUTO-CLA1-01 or CHG-AUTO-HWIRE1-01, sold separately.
USB I/O Hub	SHARE-USBH-01	Provides power and USB communication to the TC56 Vehicle Communication Charging Cradle. Requires power cable CHG-AUTO-CLA1-01 or CHG-AUTO-HWIRE1-01, sold separately.
Charge and Communication Cables		
Rugged Charge/USB Cable	CBL-TC56-USB1-01	Provides communication and power to the device. Requires power supply PWR-WUA5V12W0xx.
Audio Accessories		
2.5 mm Audio Adapter	CBL-TC56-HDST25-01	Plugs into the device and provides audio to a wired headset with 2.5 mm plug.
2.5 mm Headset	HDST-25MM-PTVP-01	Use for PTT and VoIP calls
3.5 mm Audio Adapter	CBL-TC56-HDST35-01	Plugs into the device and provides audio to a wired headset with collared 3.5 mm plug.
3.5 mm Headset	HDST-35MM-PTVP-01	Use for PTT and VoIP calls.
Miscellaneous		
Rugged Boot	SG-TC56-EXO1-01	Provides additional protection for the device.
Trigger Handle	TRG-TC56-SNP1-01	Adds gun-style handle with a scanner trigger for comfortable and productive scanning. Requires Rugged Boot.
Trigger Handle Kit (with Rugged Boot)	TRG-TC56-TRG1-01	Adds gun-style handle with a scanner trigger for comfortable and productive scanning.
Screen Protector	KT-TC56-SCRNP1-01	Add additional screen protection.

Table 13 TC56 Accessories (Continued)

Accessory	Part Number	Description
SmartDEX Solution	DEX30	Provides wireless DEX communications to the TC56.
Carrying Solutions		
Soft Holster	SG-TC56-HLSTR1-01	Use to hold the device on hip. Accepts device with Rugged Boot and Trigger Handle
Hand Strap	SG-TC56-EHDSTP1-03	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	PWR-BGA12V50W0WW	Provides power to the 1-Slot USB Charge cradle and 4-Slot Spare Battery Charger. Requires AC line cord.
Power Supply	PWR-BGA12V108W0WW	Provides power to the 4-Slot Charge Only Cradle with battery Charger, 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.
Power Supply	PWR-WUA5V12W0US	Provides 5 VDC, 2.5 A power to the Rugged Charge/USB cable. Includes plug adapter for use in the United States.
Power Supply	PWR-WUA5V12W0GB	Provides 5 VDC, 2.5 A power to the Rugged Charge/USB cable. Includes plug adapter for use in the European Union.
Power Supply	PWR-WUA5V12W0EU	Provides 5 VDC, 2.5 A power to the Rugged Charge/USB cable. Includes plug adapter for use in the United Kingdom.
Power Supply	PWR-WUA5V12W0AU	Provides 5 VDC, 2.5 A power to the Rugged Charge/USB cable. Includes plug adapter for use in Australia.
Power Supply	PWR-WUA5V12W0CN	Provides 5 VDC, 2.5 A power to the Rugged Charge/USB cable. Includes plug adapter for use in China.
Power Supply	PWR-WUA5V12W0IN	Provides 5 VDC, 2.5 A power to the Rugged Charge/USB cable. Includes plug adapter for use in India.

Table 13 TC56 Accessories (Continued)

Accessory	Part Number	Description
DC Line Cord	CBL-DC-382A1-01	Provides power from the power supply (PWR-BGA12V108W0WW) to the 4-Slot Charge Only Cradle with Battery Charger, 5-Slot Charge Only Cradle and 5-Slot Ethernet Cradle.
DC Line Cord	CBL-DC-388A1-01	Provides power from the power supply (PWR-BGA12V50W0WW) to the 1-Slot USB/Charge Only Cradle and 4-Slot Battery Charger.

1-Slot USB Charge Cradle

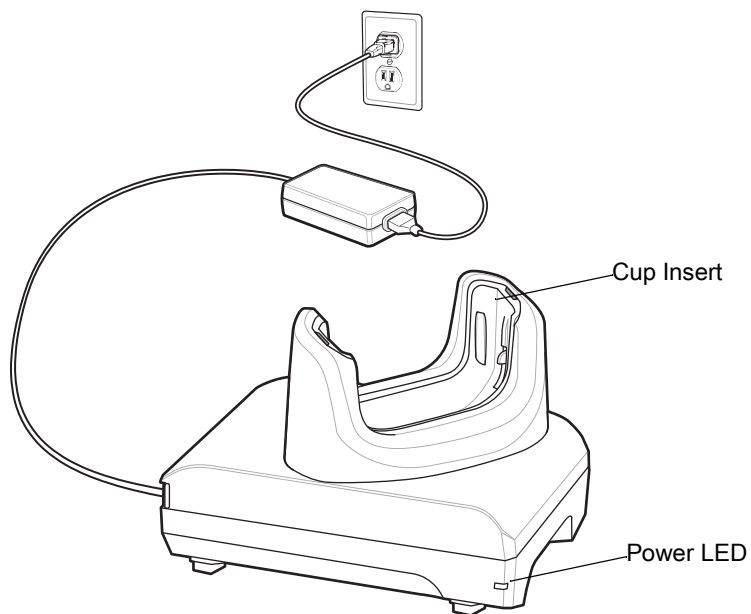


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines on page 197](#).

The 1-Slot USB Charge Cradle:

- Provides 5 VDC power for operating the device.
- Charges the device's battery.
- Provides USB communication with host computer.

Figure 129 1-Slot USB Charge Cradle



Charging the Device

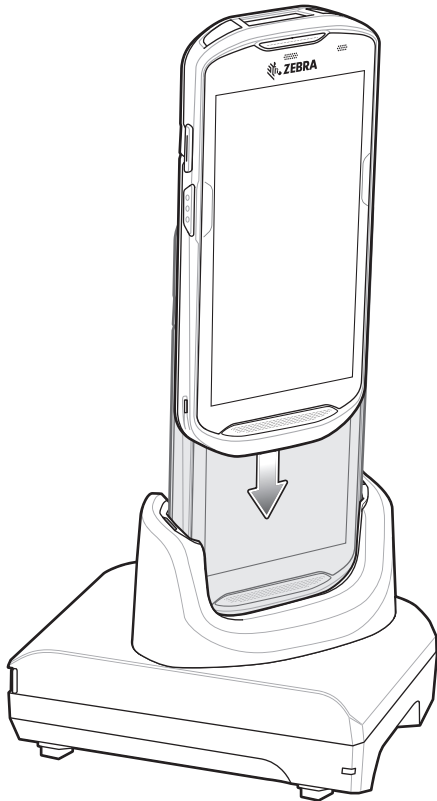
To charge a device:



NOTE: If the device has a Rugged Boot, remove the cup insert before inserting the device. See TC56 Touch Computer Integrator Guide for Android Version 7.1.2 for details.

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

Figure 130 Battery Charging

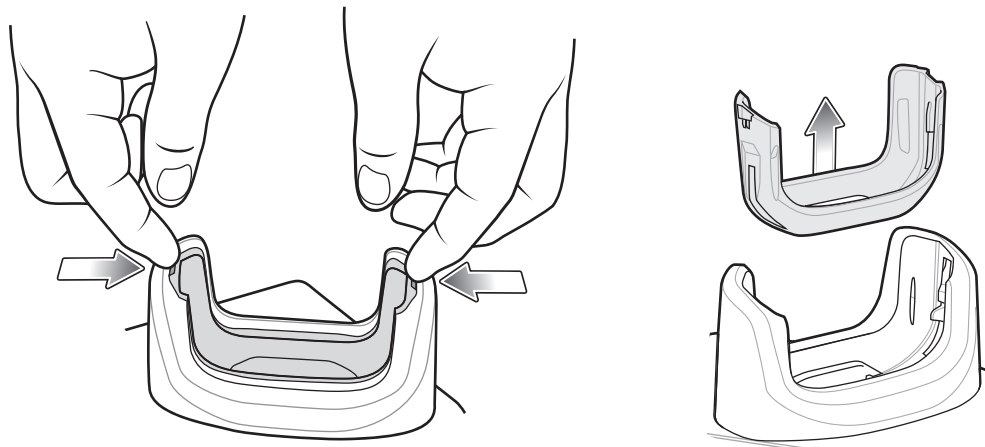


2. Ensure the device is seated properly.

Inserting a TC56 with Rugged Boot into Cradle

Each cradle cup has an insert that must be removed prior to inserting the TC56 with Rugged Boot. Remove the insert and then insert the TC56 into the cup.

Figure 131 Remove Insert from Cup



Battery Charging

The device's Charging/Notification LED indicates the status of the battery charging in the device. See [Table 3 on page 26](#) for device charging status. The ≥ 15.48 Watt hours (typical) / $\geq 4,150$ mAh battery charges from fully depleted to 90% in approximately 2.5 hours and from fully depleted to 100% in approximately three hours.



NOTE: In many cases the 90% charge provides plenty of charge for daily use. A full 100% charge lasts for approximately 14 hours of use.

To achieve the best fast charging results use only Zebra charging accessories and batteries. Charge batteries at room temperature with the TC56 in sleep mode.

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

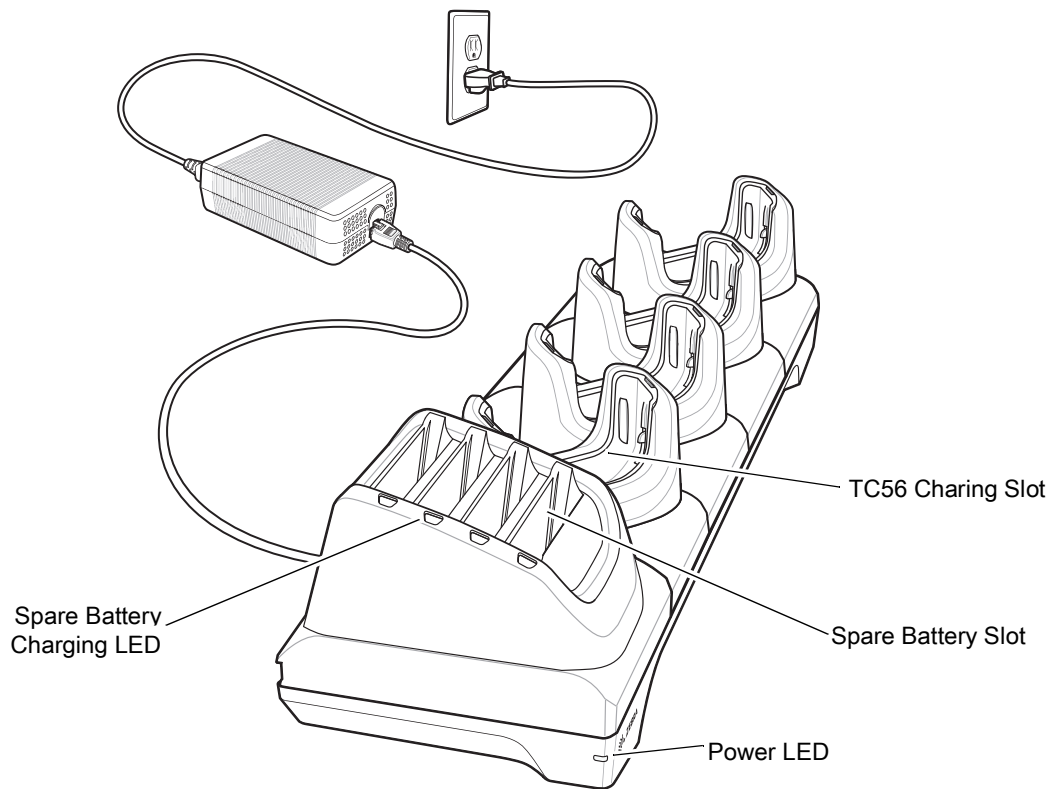


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines on page 197](#).

The 4-Slot Charge Only Cradle with Battery Charger:

- Provides 5 VDC power for operating the TC56.
- Simultaneously charges up to four TC56s and up to four spare batteries using the Battery Charger Adapter.

Figure 132 4-Slot Charge Only Cradle with Battery Charger



Charging the TC56

To charge a device:



NOTE: If the device has a Rugged Boot, remove the cup insert before inserting the device. See TC56 Touch Computer Integrator Guide for Android Version 7.1.2 for details.

1. Insert the TC56 into a slot to begin charging.

Figure 133 TC56 Battery Charging

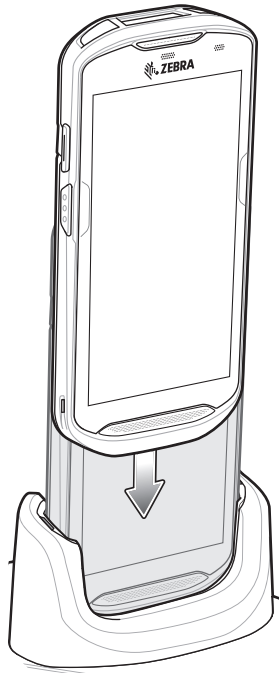
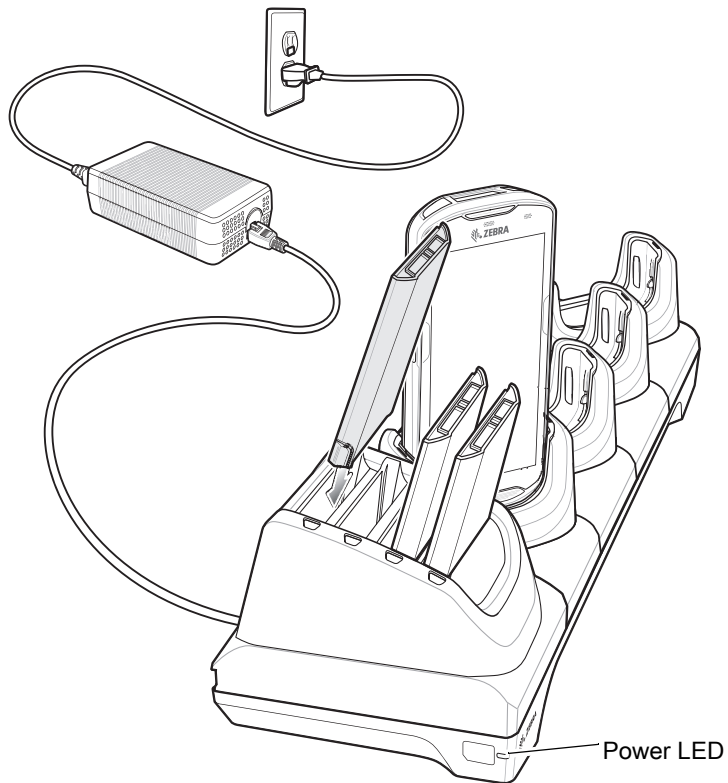


Figure 134 Spare Battery Charging



2. Ensure the TC56 is seated properly.

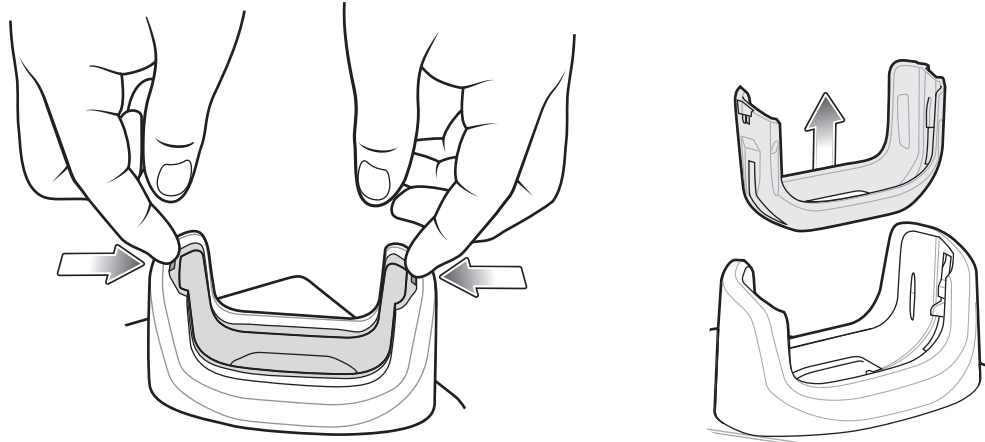


See the TC56 Touch Computer Integrator Guide for Android Version 7.1.2 for Android Version 7.1.2 for information on installing the 4-Slot Battery Charger onto the cradle.

Inserting a TC56 with Rugged Boot into Cradle

Each cradle cup has an insert that must be removed prior to inserting the TC56 with Rugged Boot. Remove the insert and then insert the TC56 into the cup.

Figure 135 Remove Insert from Cup



Battery Charging

Main Battery Charging

The device's Charging/Notification LED indicates the status of the battery charging in the device. See [Table 3 on page 26](#) for device charging status. The ≥ 15.48 Watt hours (typical) / $\geq 4,150$ mAh battery charges from fully depleted to 90% in approximately 2.5 hours and from fully depleted to 100% in approximately three hours.



NOTE: In many cases the 90% charge provides plenty of charge for daily use. A full 100% charge lasts for approximately 14 hours of use.

To achieve the best fast charging results use only Zebra charging accessories and batteries. Charge batteries at room temperature with the TC56 in sleep mode.

Spare Battery Charging








The Spare battery Charging LED on the cup indicates the status of the spare battery charging. The ≥ 15.48 Watt hours (typical) / $\geq 4,150$ mAh battery charges from fully depleted to 90% in approximately 2.5 hours and from fully depleted to 100% in approximately three hours.



NOTE: In many cases the 90% charge provides plenty of charge for daily use. A full 100% charge lasts for approximately 14 hours of use.

To achieve the best fast charging results use only Zebra charging accessories and batteries.

Table 14 Spare Battery LED Charging Indicators

LED	LED	Indication
Solid amber		Spare battery is charging.
Solid amber with alternate bright amber		Best spare battery is charging.
Solid Green		Spare battery charging is complete.
Solid Green with alternate bright green		Best spare battery charging is complete.
Solid Red		Spare battery is charging and battery is at the end of useful life. Charging complete and battery is at the end of useful life.
Fast Blinking Red (2 blinks/second)		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 Charge Only Cradle

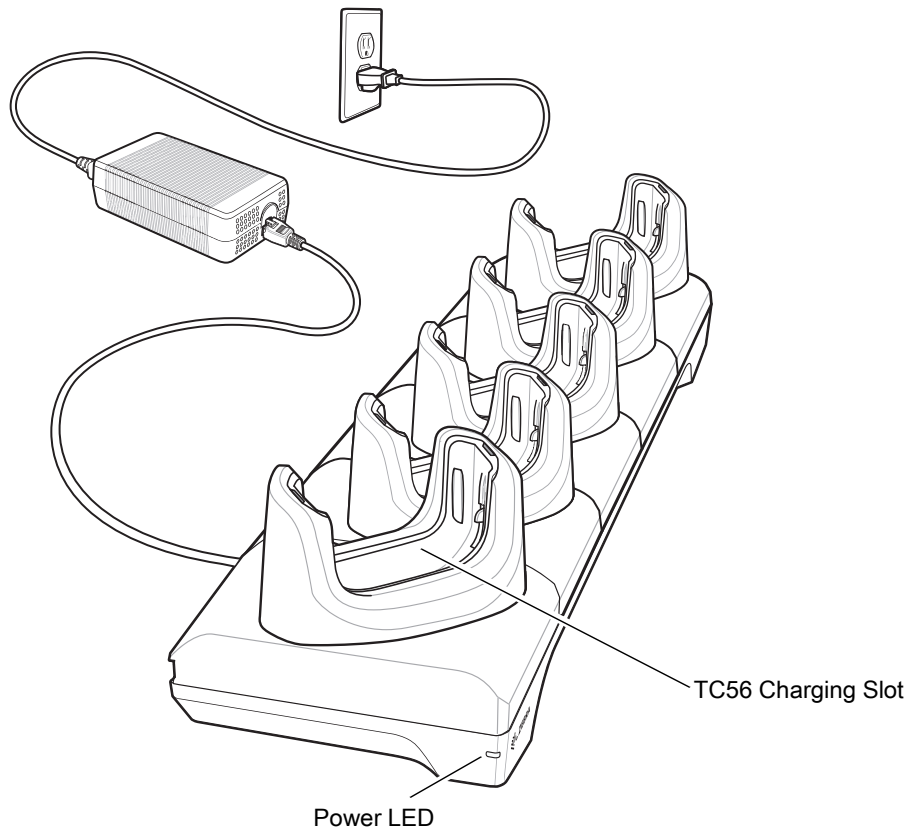


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines on page 197](#).

The 5-Slot Charge Only Cradle:

- Provides 5 VDC power for operating the TC56.
- Simultaneously charges up to five TC56s.

Figure 136 5-Slot Charge Only Cradle



Charging the TC56

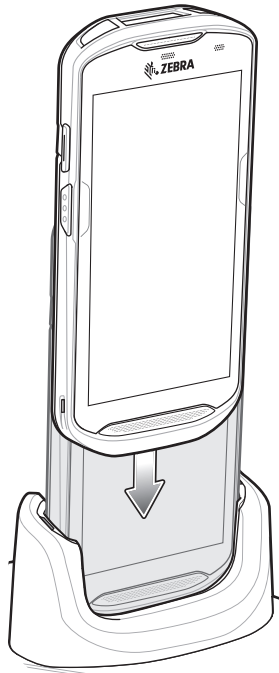
To charge a device:



NOTE: If the device has a Rugged Boot, remove the cup insert before inserting the device. See TC56 Touch Computer Integrator Guide for Android Version 7.1.2 for details.

1. Insert the TC56 into a slot to begin charging.

Figure 137 TC56 Battery Charging



2. Ensure the TC56 is seated properly.

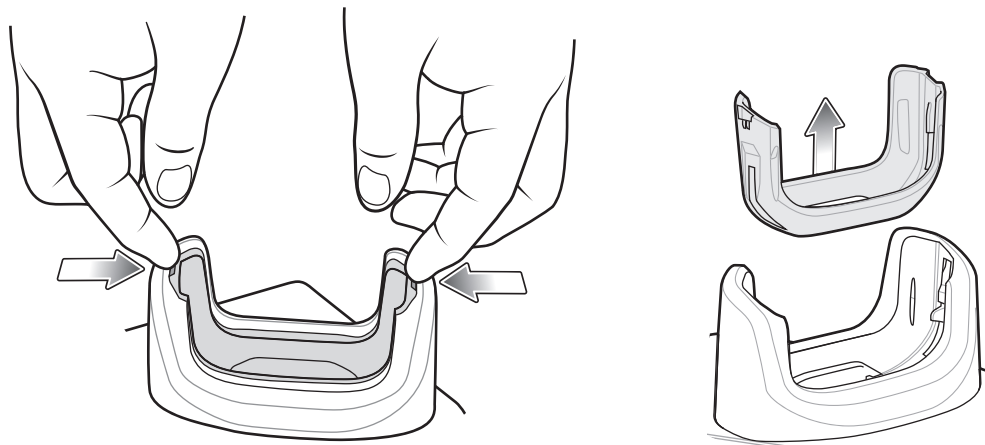


See the TC56 Touch Computer Integrator Guide for Android Version 7.1.2 for information on installing the 4-Slot Battery Charger onto the cradle.

Inserting a TC56 with Rugged Boot into Cradle

Each cradle cup has an insert that must be removed prior to inserting the TC56 with Rugged Boot. Remove the insert and then insert the TC56 into the cup.

Figure 138 Remove Insert from Cup



Battery Charging

The device's Charging/Notification LED indicates the status of the battery charging in the device. See [Table 3 on page 26](#) for device charging status. The ≥ 15.48 Watt hours (typical) / $\geq 4,150$ mAh battery charges from fully depleted to 90% in approximately 2.5 hours and from fully depleted to 100% in approximately three hours.



NOTE: In many cases the 90% charge provides plenty of charge for daily use. A full 100% charge lasts for approximately 14 hours of use.

To achieve the best fast charging results use only Zebra charging accessories and batteries. Charge batteries at room temperature with the TC56 in sleep mode.

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

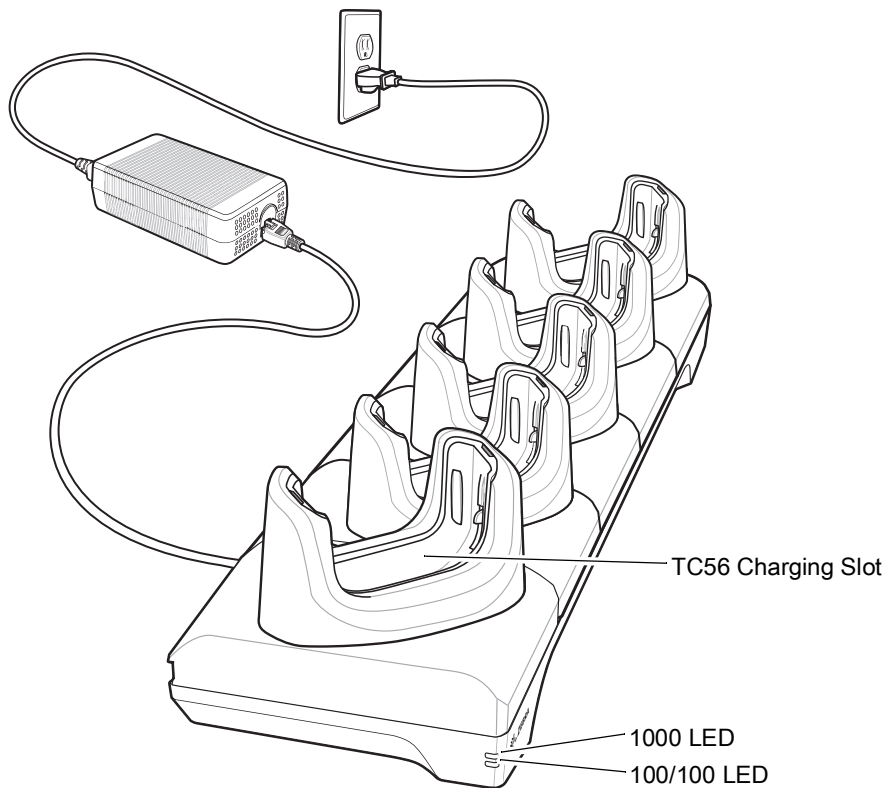


CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines on page 197](#).

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 TC56s.

Figure 139 5-Slot Ethernet Cradle



Charging the TC56

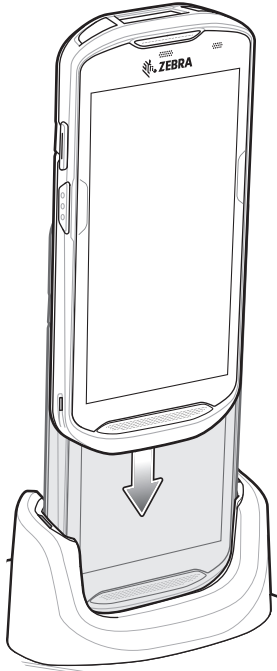
To charge a device:



NOTE: If the device has a Rugged Boot, remove the cup insert before inserting the device. See TC56 Touch Computer Integrator Guide for Android Version 7.1.2 for details.

1. Insert the TC56 into a slot to begin charging.

Figure 140 TC56 Battery Charging

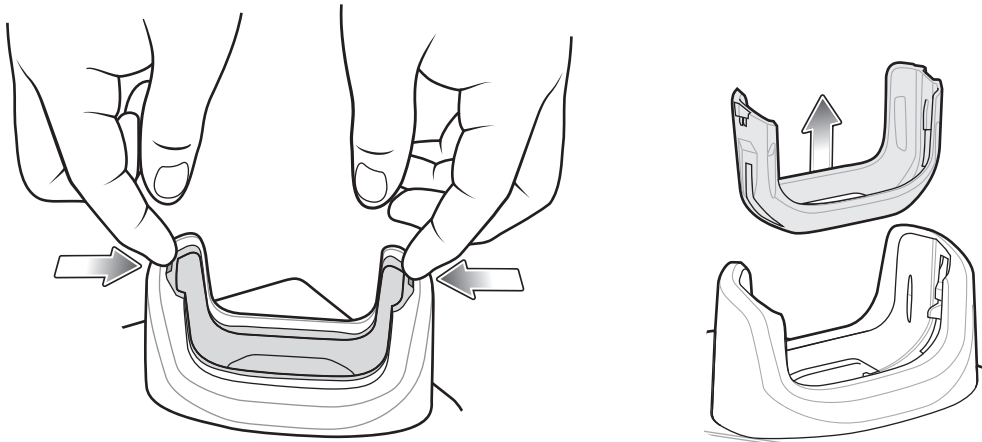


2. Ensure the TC56 is seated properly.

Inserting a TC56 with Rugged Boot into Cradle

Each cradle cup has an insert that must be removed prior to inserting the TC56 with Rugged Boot. Remove the insert and then insert the TC56 into the cup.

Figure 141 Remove Insert from Cup



Battery Charging

The device's Charging/Notification LED indicates the status of the battery charging in the device. See [Table 3 on page 26](#) for device charging status. The ≥ 15.48 Watt hours (typical) / $\geq 4,150$ mAh battery charges from fully depleted to 90% in approximately 2.5 hours and from fully depleted to 100% in approximately three hours.



NOTE: In many cases the 90% charge provides plenty of charge for daily use. A full 100% charge lasts for approximately 14 hours of use.

To achieve the best fast charging results use only Zebra charging accessories and batteries. Charge batteries at room temperature with the TC56 in sleep mode.



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 TC56 Touch Computer 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 15 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



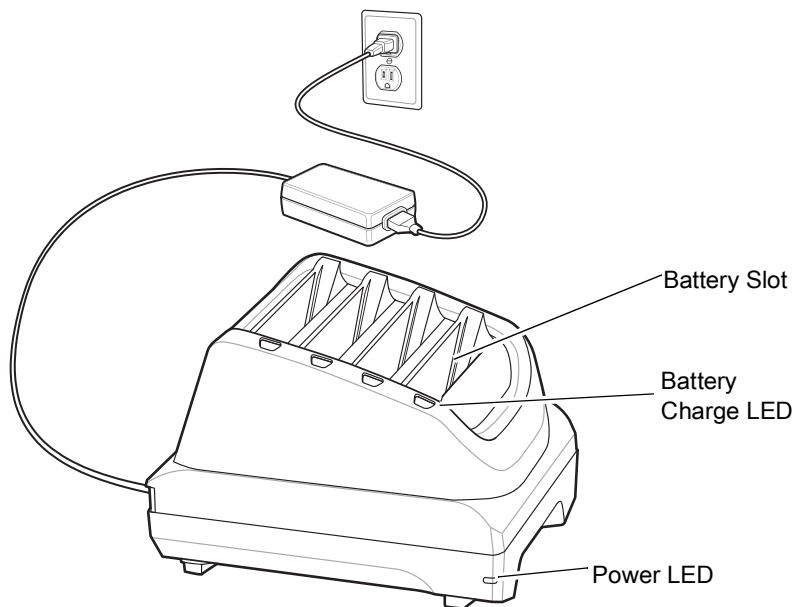
CAUTION: Ensure that you follow the guidelines for battery safety described in [Battery Safety Guidelines on page 197](#).

This section describes how to use the 4-Slot Battery Charger to charge up to four TC56 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.

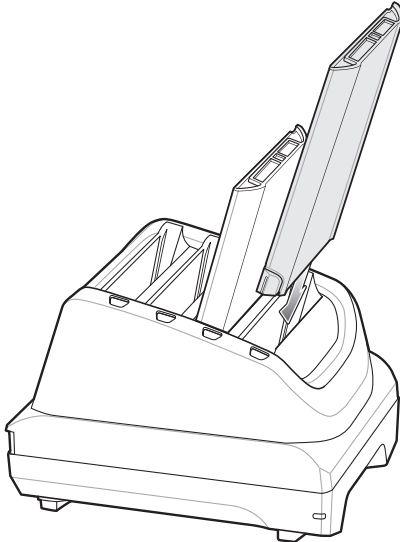
Figure 142 4-Slot Battery Charger



Battery Charging

Spare Battery Charging

Figure 143 Insert Battery into Charger



Each Battery Charging LED indicates the status of the battery charging in each slot. See [Table 14 on page 169](#) for spare battery charging indicator descriptions.

The ≥ 15.48 Watt hours (typical) / $\geq 4,150$ mAh battery charges from fully depleted to 90% in approximately 2.5 hours and from fully depleted to 100% in approximately three hours.



NOTE: In many cases the 90% charge provides plenty of charge for daily use. A full 100% charge lasts for approximately 14 hours of use.

To achieve the best fast charging results use only Zebra charging accessories and batteries.

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.

Rugged Boot

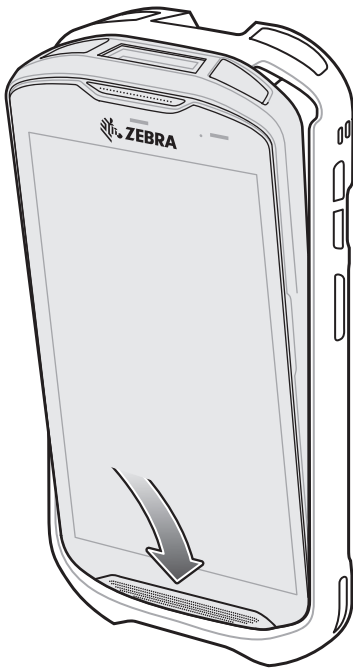
The Rugged Boot provides additional protection for the device.

Installation

To install the Rugged Boot:

1. Insert the bottom of the device into the bottom of the boot.

Figure 144 Insert Device into Boot

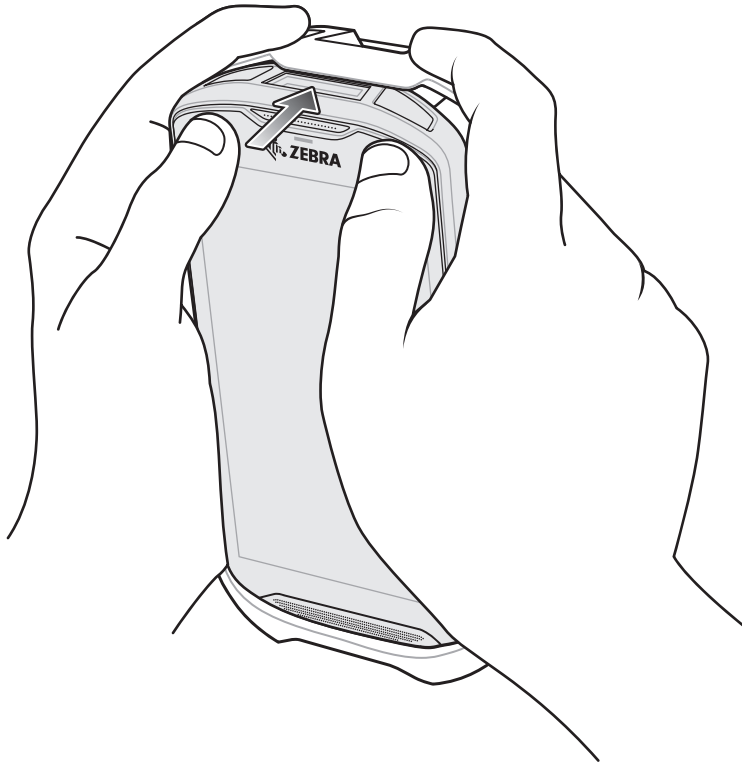


2. Lift the top of the Rugged Boot over the top of the device.

Figure 145 Lift Boot Over Device



3. Push the device into the Rugged Boot.

Figure 146 Push Device into Boot

Installing Stylus

To install the optional stylus:

1. Insert one of the loop ends of the tether through the hole in the stylus.
2. Feed the tether through the loop.
3. Pull the tether until the loop tightens.
4. Insert the loop into the hand strap holder.
5. Feed the stylus through the loop.

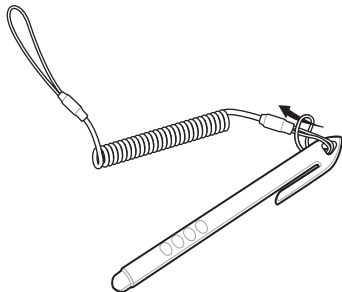
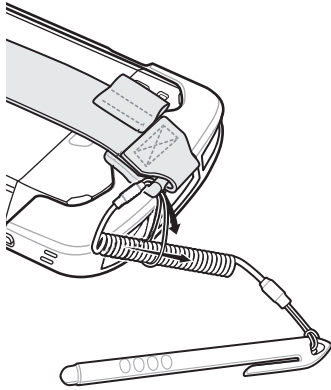
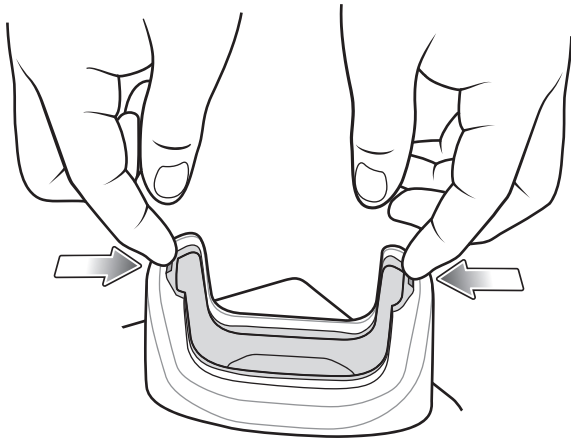
Figure 147 Install Tether to Stylus

Figure 148 Install Stylus on Hand Strap

Charging with Cradles

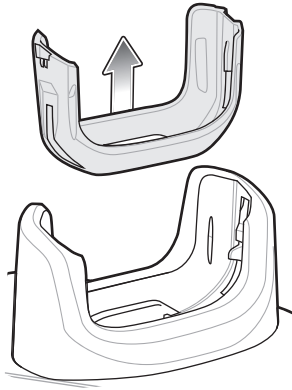
Before inserting the device with the Rugged Boot into the cradle cup, remove the insert from the cup.

1. Using index fingers on both hands, push the insert toward the center of the cup.

Figure 149 Pull Insert Toward Center

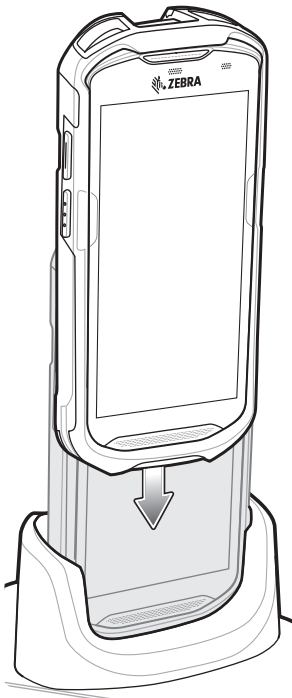
2. Lift insert out of cup.

Figure 150 Lift Insert Out of Cup



3. Insert the device into the cradle.

Figure 151 Insert Device with Boot into Cradle Cup



2.5 mm Audio Adapter

The 2.5 mm Audio Adapter plugs into the TC56 and connects to a wired headset with a 3.5 mm plug.

To attach the headset:

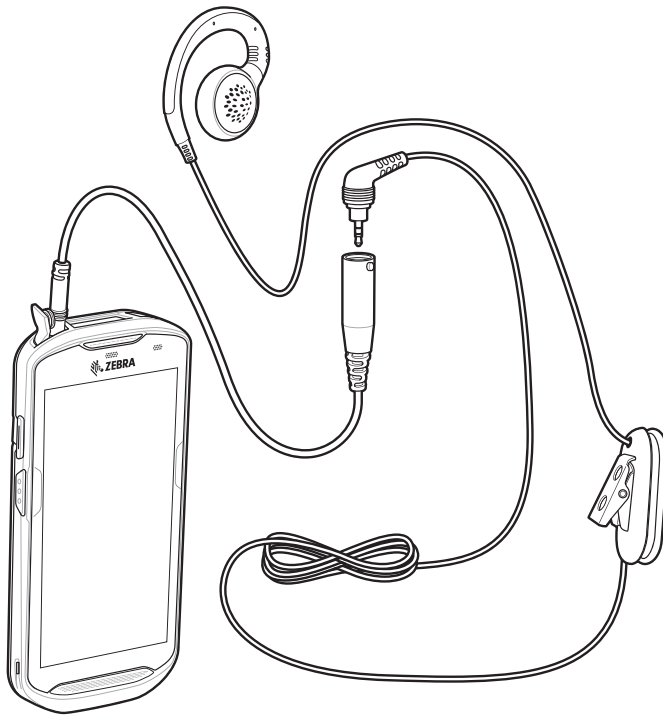
1. Open the headset jack cover.
2. Insert the 2.5 mm Audio Adapter plug into the headset jack.

Figure 152 Audio Adapter Installation



3. Insert the 2.5 mm headset plug into the jack on the Audio Adapter.

Figure 153 Connect Headset to Audio Adapter



CAUTION: After removing headset, headset jack cover must be replaced and securely seated to ensure proper device sealing.

3.5 mm Audio Adapter

The 3.5 mm Audio Adapter plugs into the TC56 and connects to a wired headset with a 3.5 mm plug.

To attach a 3.5 mm headset:

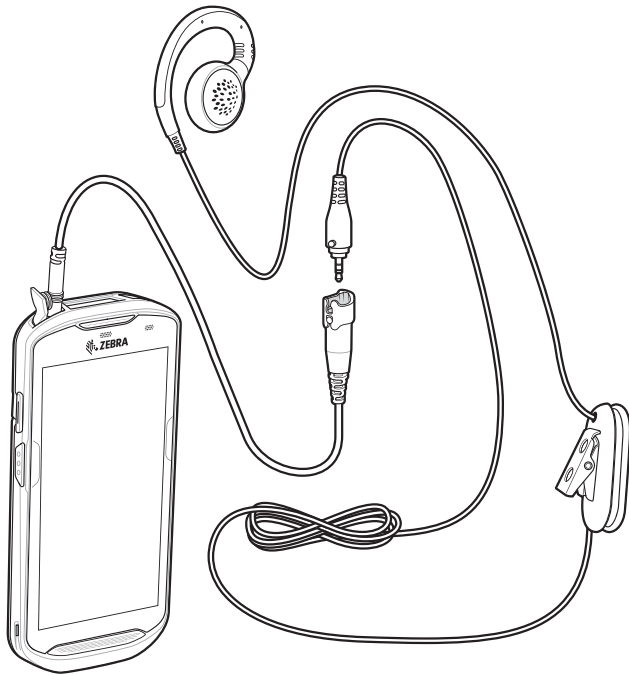
1. Open the headset jack cover.
2. Insert the 3.5 mm Audio Adapter plug into the headset jack.

Figure 154 Audio Adapter Installation



3. Connect the 3.5 mm connector plug of the headset into the 3.5 mm Audio Adapter.

Figure 155 Connect Headset to 3.5 mm Adapter Cable

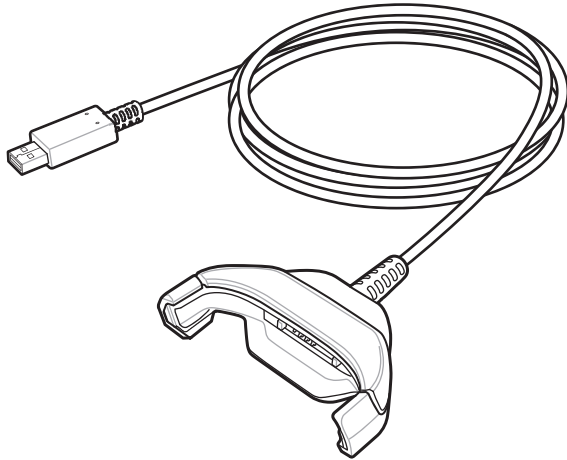


CAUTION: After removing headset, headset jack cover must be replaced and securely seated to ensure proper device sealing.

Rugged Charge/USB Cable

The Rugged Charge/USB Cable snaps onto the bottom of the TC56 and removes easily when not in use. When attached to the TC56 allows charging and allows the TC56 to transfer data to a host computer.

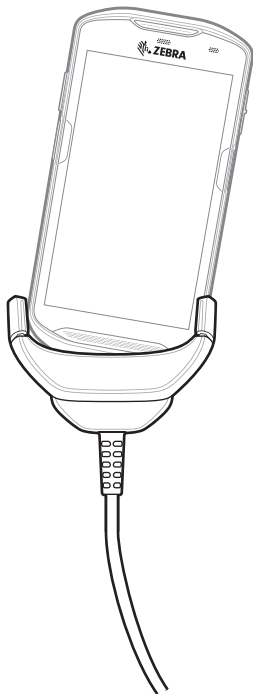
Figure 156 Rugged Charge/USB Cable



Connecting to TC56

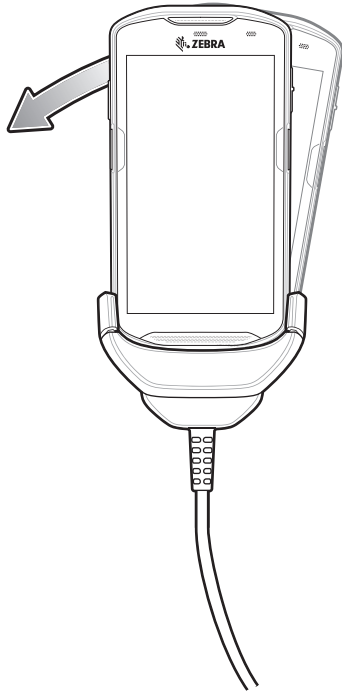
1. Insert the device at an angle into the cable cup until the device touches the bottom of the cup.

Figure 157 Device Into Cable Cup



2. Rotate the device into the cup.

Figure 158 Rotate Device into Cable Cup

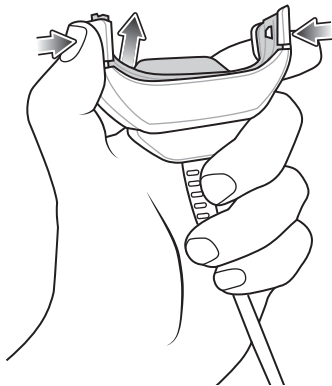


Connecting to TC56 with Rugged Boot

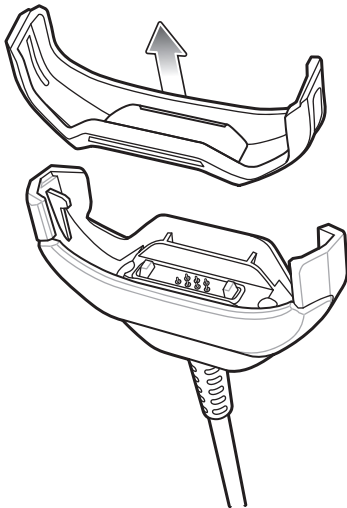
To connect the Rugged Charge/USB Cable to a TC56 with a Rugged Boot:

1. Using thumb and index finger, squeeze the sides of the cup in.

Figure 159 Remove Cable Cup Insert



2. Lift insert out of cup.

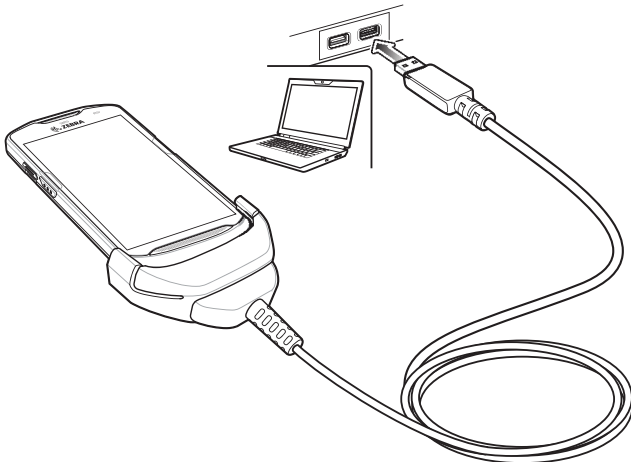
Figure 160 Cable Installation

3. Align the cable cup with the bottom of the device.
4. Press the device into the cable cup until it securely in place.

USB Communication

To connect the device to a host computer:

1. Connect the Rugged Charge/USB Cable to the TC56.
2. Connect the USB connector of the cable to a host computer.

Figure 161 Rugged Charge/USB Cable to Host Computer

Charging the Device

To charge the device using the Rugged Charge/USB Cable:

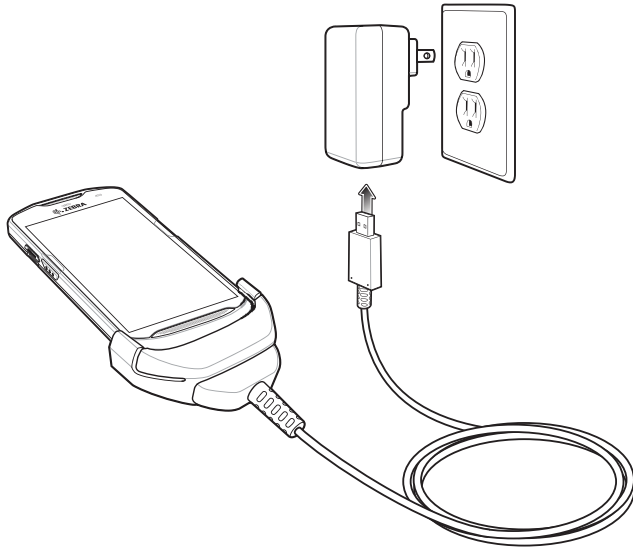
1. Connect the Rugged Charge/USB Cable to the TC56.
2. Connect the USB connector of the power supply.



NOTE: See [Power Supply](#) on page 195 for information on setting up the power supply.

3. Plug to power supply into an power outlet.

Figure 162 Charging Using the Rugged Charge/USB Cable

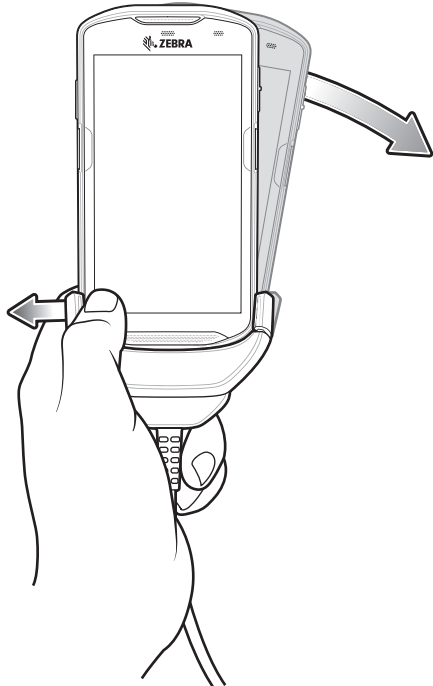


Disconnecting the Rugged Charge/USB Cable

To disconnect the Rugged Charge/USB Cable from the TC56:

1. Rotate the device to one side.

Figure 163 Remove Device from Rugged Charge/USB Cable



2. Push the Rugged Charge/USB Cable to the other side.
3. Remove the device from the Rugged Charge/USB Cable.

Battery Charging

Main Battery Charging

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



NOTE: Charging using a host computer USB port or a power supply other than the Zebra PWR-WUA5V12W0xx could take longer. See [Table 13 on page 159](#).

Non-Zebra power supply must provide 5 VDC @ 2.5 A.

The ≥ 15.48 Watt hours (typical) / $\geq 4,150$ mAh battery charges from fully depleted to 90% in approximately 2.5 hours and from fully depleted to 100% in approximately three hours.



NOTE: In many cases the 90% charge provides plenty of charge for daily use. A full 100% charge lasts for approximately 14 hours of use.

To achieve the best fast charging results use only Zebra charging accessories and batteries. Charge batteries at room temperature with the TC56 in sleep mode.

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.

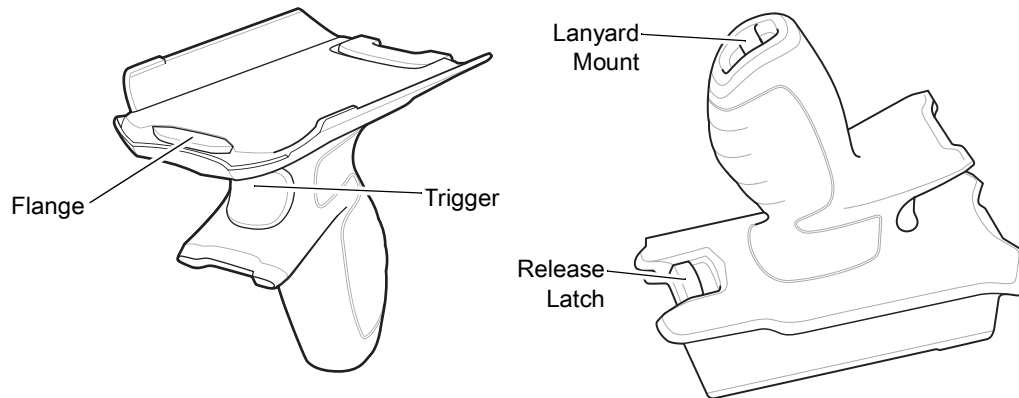
Trigger Handle



NOTE: The Rugged Boot is required to install the Trigger Handle onto the device. Trigger Handle (p/n TRG-TC56-SNP1-01) does not contain the Rugged Boot and must be purchased separately. Trigger Handle Kit (p/n TRG-TC56-TRG1-01) contains the Rugged Boot.

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 164 Trigger Handle



Installing the Rugged Boot

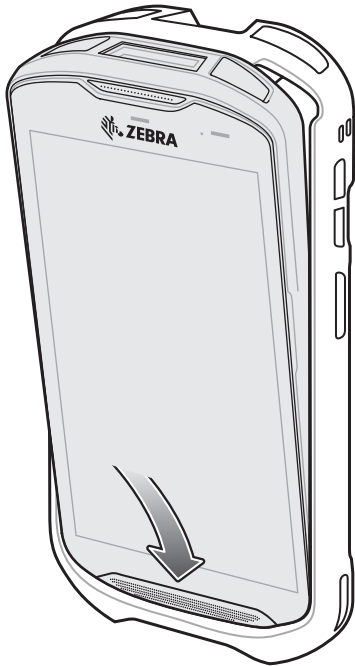


NOTE: If a Hand Strap is attached to the Rugged Boot, remove prior to installing onto device.

To install the Rugged Boot:

1. Insert the bottom of the device into the bottom of the boot.

Figure 165 Insert Device into Boot



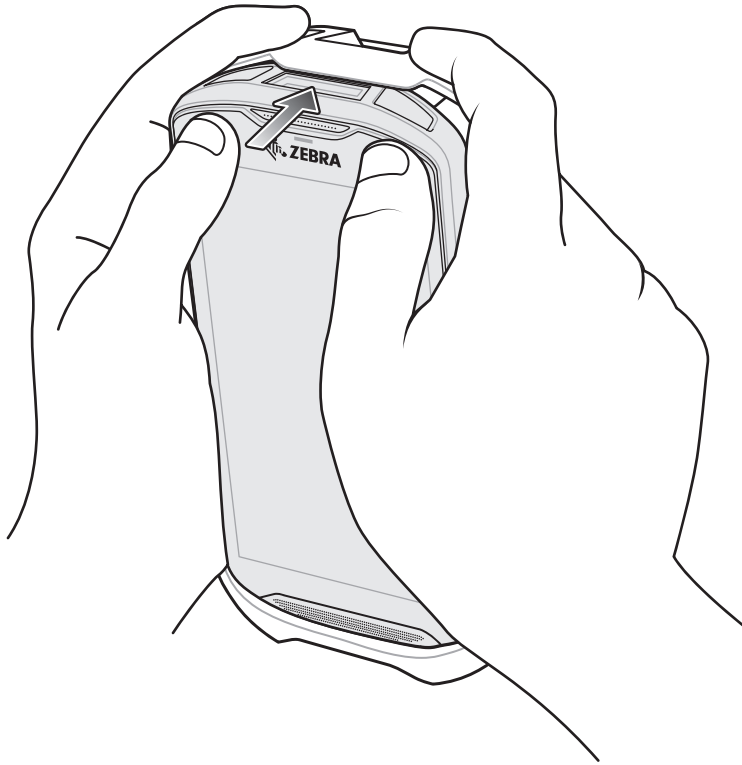
2. Lift the top of the Rugged Boot over the top of the device.

Figure 166 Lift Boot Over Device



3. Push the device into the Rugged Boot.

Figure 167 Push Device into Boot

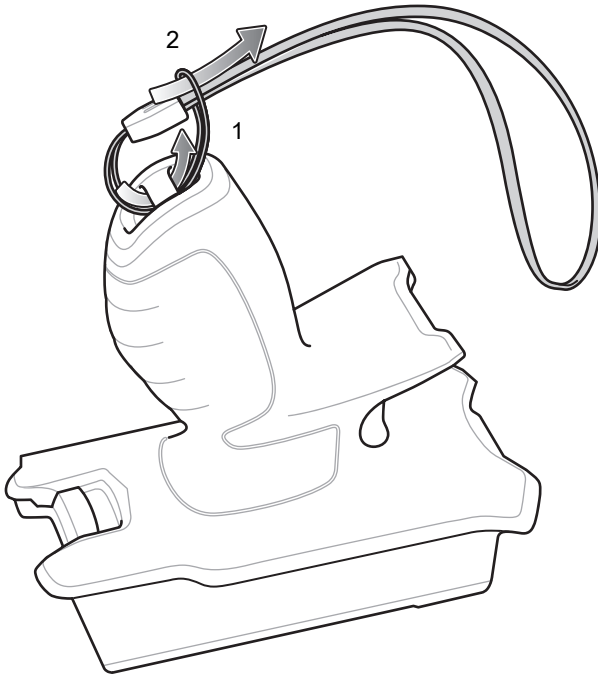


Installing the Optional Lanyard

To install the lanyard onto the Trigger Handle:

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

Figure 168 Install Attachment Plate to Handle



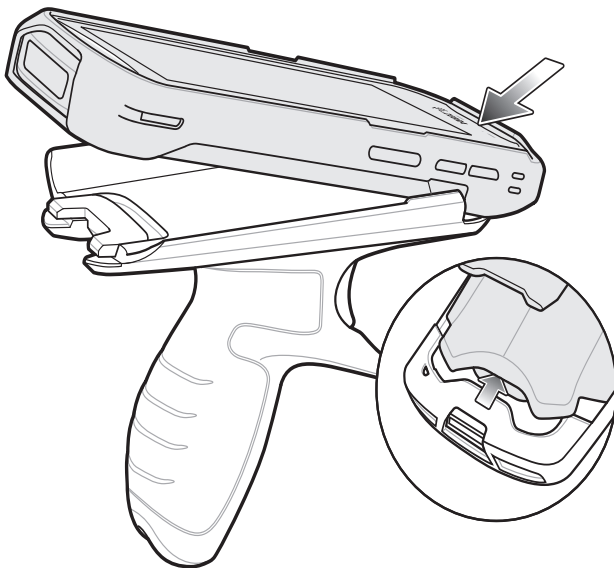
3. Pull the lanyard until the loop tightens.

Inserting the Device into the Trigger Handle

To install the device onto the Trigger handle:

1. Align and insert the flange of the Trigger Handle with the top of the Rugged Boot.

Figure 169 Connect Device to Trigger Handle



2. Rotate the device down and press down until it snaps into place.

Figure 170 Rotate Device onto Trigger Handle



Removing the Device from the Trigger Handle

To remove the device from the Trigger Handle:

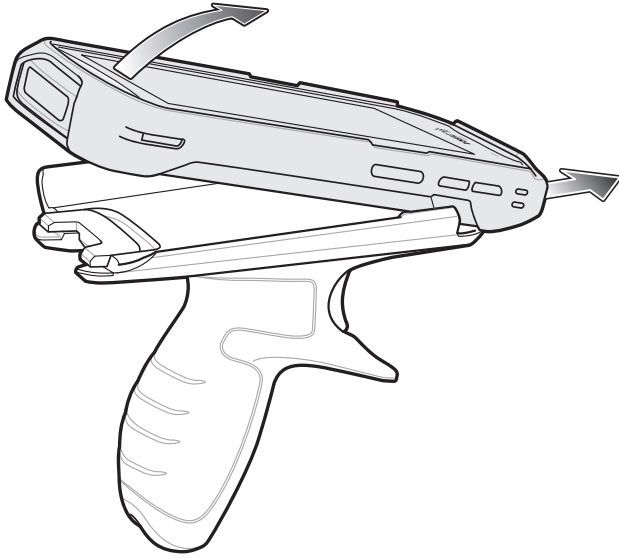
1. Press Trigger Handle release latch.

Figure 171 Press Release Latches



2. Slide the device forward and then rotate the bottom of the device up.

Figure 172 Remove Device from Trigger Handle

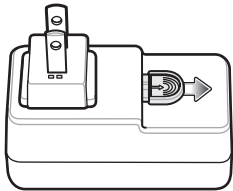


Power Supply

Use the power supply with the Rugged Charge/USB Cable to charge the TC56. The power supply comes in various configuration with different plug adapters for use internationally. To change the plug adapters:

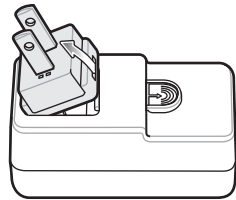
1. Pull the release button down.

Figure 173 Pull Release Button



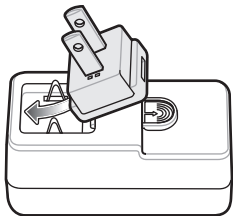
2. Rotate the plug adapter up and out of the power supply.

Figure 174 Lift Plug Adapter



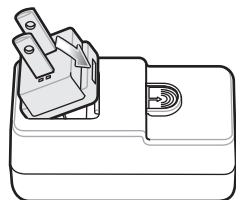
3. Insert the replace plug adapter into the power supply.

Figure 175 Insert Plug Adapter



4. Rotate the plug adapter down and snap into place.

Figure 176 Rotate Plug Adapter in Power Supply



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 TC56

For trouble-free service, observe the following tips when using the TC56:

- Do not scratch the screen of the TC56. When working with the TC56 use the supplied stylus or plastic-tipped pens intended for use with a touch-sensitive screen. Never use an actual pen or pencil or other sharp object on the surface of the TC56 screen.
- The touch-sensitive screen of the TC56 is glass. Do not drop the TC56 or subject it to strong impact.
- Protect the TC56 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 TC56 in any location that is dusty, damp, or wet.
- Use a soft lens cloth to clean the TC56. If the surface of the TC56 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.

Display Best Practices

Image Retention

Image retention may occur when a static image continuously displays for extended periods of time. A user may see a faint remnant of the image even after a new image displays. To prevent image retention:

- set the display to turn off after a few minutes of idle time.
- rotate background images on a periodic basis.
- turn off the display when the device is not in use.
- use a screen saver with the following characteristics:
 - background color set to black
 - use a small moving image (approximately 2% of the display size).
 - move the image randomly across the screen
 - screen saver should be active as long as the static image is used.

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, ammonium chloride or mild dish soap.



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

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

Due to the powerful oxidizing nature of sodium hypochlorite the metal surfaces on the device are prone to oxidation (corrosion) when exposed to this chemical in 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 type of disinfectants come in contact with metal on the device, prompt removal with an alcohol-dampened cloth or cotton swab after the cleaning step is critical.

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; carboic 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 ethanalamine, 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 TC56

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.

TC56

Table 16 Troubleshooting the TC56

Problem	Cause	Solution
When pressing the power button the TC56 does not turn on.	Battery not charged.	Charge or replace the battery in the TC56.
	Battery not installed properly.	Install the battery properly.
	System crash.	Perform a reset.
When pressing the power button the TC56 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 TC56.
Battery did not charge.	Battery failed.	Replace battery. If the TC56 still does not operate, perform a reset.
	TC56 removed from cradle while battery was charging.	Insert TC56 in cradle. See Charging the Battery on page 25 .
	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.	TC56 not powered on.	Press the Power button.
During data communication with a host computer, no data transmitted, or transmitted data was incomplete.	TC56 removed from cradle or disconnected from host computer during communication.	Replace the TC56 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 16 Troubleshooting the TC56 (Continued)



Problem	Cause	Solution
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.
TC56 shuts off.	TC56 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 TC56 memory is full.	Too many files stored on the TC56.	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 TC56.	Remove user-installed applications on the TC56 to recover memory. Select  >  Apps . Select the unused application and tap UNINSTALL .
The TC56 does not decode with reading bar code.	Scanning application is not loaded.	Load a scanning application on the TC56 or enable DataWedge. See the system administrator.
	Unreadable bar code.	Ensure the symbol is not defaced.
	Distance between exit window and bar code is incorrect.	Place the TC56 within proper scanning range.
	TC56 is not programmed for the bar code.	Program the TC56 to accept the type of bar code being scanned. Refer to the EMDK or DataWedge application.
	TC56 is not programmed to generate a beep.	If the TC56 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 TC56 low battery condition notification. Note: If the scanner is still not reading symbols, contact the distributor or the Global Customer Support Center.

Table 16 Troubleshooting the TC56 (Continued)

Problem	Cause	Solution
TC56 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 TC56.	User enters incorrect password.	<p>If the user enters an incorrect password eight times, the user is requested to enter a code before trying again.</p> <p>If the user forgot the password, contact system administrator.</p>

Technical Specifications

Introduction

The following sections provide technical specification for the device.

TC56

Table 17 TC56 Technical Specifications

Item	Description
Physical Characteristics	
Dimensions	Height: 155 mm (6.1 in.) Width: 75.5 mm (2.9 in.) Depth: 18.6 mm (0.73 in.)
Weight	249 g (8.8 oz) with battery
Display	5.0 in. High Definition (1280 x 720); exceptionally bright, outdoor viewable; optically bonded to touch panel
Touch Panel	Dual mode capacitive touch with stylus or bare or gloved fingertip input (conductive stylus sold separately); Corning Gorilla Glass 4
Backlight	Light Emitting Diode (LED) backlight
Battery	Rechargeable Li-Ion, Power Precision +; Standard Capacity, ≥ 15.48 Watt hours (typical) / $\geq 4,150$ mAh minimum; improved battery technology for longer cycle times and real-time visibility into battery metrics for better battery management; fast charging (up to 2.4 mA)
Expansion Slot	User accessible microSD up to 32 GB SDHC and up to 128 GB SDXC support
SIM	1 Nano SIM slot
Connection Interface	Universal Serial Bus (USB) 2.0 High Speed (host and client)
Network Connections	WWAN, WLAN, WPAN (Bluetooth)
Notification	Audible tone; multi-color LEDs, vibration

Table 17 TC56 Technical Specifications (Continued)

Item	Description
Keypad	On-screen keypad and enterprise keyboard
Voice and Audio	Two microphones support with noise cancellation; vibrate alert; speaker; Bluetooth wireless headset support. High quality speaker phone; PTT headset support; Cellular circuit switch voice; HD Voice
Buttons	Programmable back button; dual dedicated scan buttons; dedicated push-to-talk button, and volume up/down buttons
Performance Characteristics	
CPU	Snapdragon 650 64-bit Hexa-Core 1.8GHz ARM Cortex A72, power optimization
Operating System	Android 7.1.2 Nougat with Zebra's Mobility Extensions (Mx) (pre-installed on both AOSP and GMS options)
Memory	Standard: 2 GB RAM/16 GB Flash Optional: 4 GB RAM/32 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)
Relative Humidity	Operating: 5 to 95% non-condensing
Drop Specification	Multiple 1.2 m (4 ft.) to tile over concrete over -10°C to 50°C (14°F to 122°F). Multiple 1.8 m (6 ft.) drops with Rugged Boot per Mil Std 810 G.
Tumble	500 0.5 m (1.6 ft.) tumbles; meets and exceeds IEC tumble specifications
Sealing	IP67 and IP65 per applicable IEC sealing specifications
Electrostatic Discharge (ESD)	+/-15 kVDC air discharge, +/-10 kVDC direct discharge, +/- 10 kVDC indirect discharge
Vibration	4 g's PK Sine (5 Hz to 2 kHz); 0.04g ² /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 with MEMS Gyro
Light Sensor	Automatically adjusts display backlight brightness
Proximity Sensor	Automatically detects when the user places the handset against head during a phone call to disable display output and touch input.
Wireless LAN Data and Voice Communications	
Radio	IEEE 802.11a/b/g/n/ac/d/h/i/k/r/w; Wi-Fi™ certified; IPv4, IPv6; 1x1 SISO

Table 17 TC56 Technical Specifications (Continued)

Item	Description
Data Rates Supported	5GHz: 802.11a/n/ac - up to 433.3 Mbps 2.4GHz: 802.11b/g/n - up to 72.2 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 and Encryption	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 Data in Motion: FIPS 140-2 Level 1 Data at Rest: FIPS 140-2 Level 1
Certifications	WFA (802.11n, 802.11ac, WMM-AC, Voice Enterprise, WMM-PS), Miracast WFA (Mobile AP / Personal Hotspot)
Fast Roam	PMKID caching; Cisco CCKM; 802.11r; OKC
Wireless WAN Data and Voice Communications	
Frequency band	Worldwide: LTE: 700,800/900/1800/2100/2600 (FDD 28,20,8,3,1,7); UMTS/HSPA/HSPA+: 850/900/AWS/1900/2100; GSM/GPRS/EDGE: 850/900/1800/1900 Americas: LTE: 700/850/1900/AWS, (FDD 13,12,17,5,2,4); UMTS/HSPA/HSPA+: 850, 900, AWS, 1900, 2100 GSM/GPRS/EDGE: 850/900/1800/1900; CDMA: 850,1900 (BC0, BC1)
GPS	Integrated, Autonomous, Assisted GPS (A-GPS), Navstar, GLONASS, BeiDou
Wireless PAN Data and Voice Communications	
Bluetooth	Class 2, Bluetooth v4.1 (Bluetooth Smart technology); Bluetooth Wideband support HFPv1.6; Bluetooth v4.1 Low Energy (LE)
Data Capture Specifications	
2D Imager	SE4710 imager (1D and 2D) with LED aimer.
Camera	Rear - 13 MP autofocus; f/2.4 aperture; rear camera flash LED generates balanced white light; supports Torch mode.
Near Field Communications (NFC)	ISO 14443 Type A and B; F; FeliCa and ISO 15693 cards; P2P mode and Card Emulation via UICC and Host
2D Imager Engine (SE4710) Specifications	

Table 17 TC56 Technical Specifications (Continued)

Item	Description
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.)
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 18 Data Capture Supported Symbologies

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

Index

Numerics

1-slot USB/charge only cradle kit	159
4-slot battery charger kit	160
4-slot charge only cradle with battery charger kit	159
5-slot charge only cradle kit	159
5-slot Ethernet cradle kit	159

A

ActiveEdge touch zone	83
adaptive frequency hopping	153
adjust volume	69
airplane mode	33
albums	103, 109
applications	55
approved cleanser	198
audio adapter	160
audio modes	68

B

battery	18, 160
low power notification	33
management	32
manager	87
optimization	33
usage monitoring	32
battery charging	25
battery manager	87
battery swap	26
battery usage	32
Bluetooth	144, 153
PIN	153
power states	154
profiles	154
security	153
bluetooth	153
Bluetooth call	79
Bluetooth headset	68
browser	55

C

calculator	55
calendar	55
call barring	82
call forwarding	81
call waiting	82
caller ID	81
camera	18, 58, 97
camera settings	99
cleaning	198
cleaning instructions	198
clock	55
conference call	76
Configurations	12
connect to WLAN	151
contacts	56, 96
cradle	
connector cleaning	200
cradle mount	159

D

data capture	130
datawedge	56, 143
datawedge demo	114
DC line cord	162
display	
cleaning	199
display settings	34
downloads	56
DWDEmo	56

E

EAP	151
email	56
emergency calling	68
Ethernet connection	175

- F**
- feature 17
 - feedback 15
 - file browser 56, 92
 - file transfer 66
 - finger usage 36
 - fixed dialing numbers 81
 - font size 36
- G**
- gallery 56, 102
- H**
- hand strap 161
 - handset mode 68
 - hands-free imager 131
 - hard reset 64
 - harmful ingredients 198
 - headset jack 18
 - headset mode 68
 - home screen 42
 - home screen rotation 35
- I**
- imager scanning 130
- L**
- light sensor 17
 - low battery notification 33
- M**
- microSD card 19, 28
 - model number 13
- N**
- near field communication 144
 - near field communications 157
 - NFC 157
 - NFC antenna 18
 - notification icons 45
- P**
- panoramic 98
 - panoramic photos 98
 - photo settings 99
 - photo transfer 66
 - photos 97
 - taking photos 97
 - picklist 130
 - power supply 161
 - proximity sensor 17
 - PTT button 17
 - PTT Express 117
- R**
- recoding videos 98
 - recording videos 98
 - reseting the device 64
 - resetting 64
 - ringtone 81
 - RS507 scanning 135, 136
 - RS6000 scanning 134
 - rugged boot 160
 - rugged charge/USB cable 160
 - RxLogger 121
- S**
- scan button 17
 - scanning 130, 132
 - scanning application 114
 - screen
 - unlocking 60
 - screen font size 36
 - screen rotation 34
 - screen timeout 35
 - security 151
 - serial number 13
 - service information 14
 - set font size 36
 - setting
 - camera 99
 - font 36
 - notification LED 37
 - sounds 38
 - touch panel mode 36
 - video 100
 - wakeup sources 39
 - setting date 34
 - setting time 34
 - settings 58
 - display 34
 - SIM card 29
 - soft holster 161
 - soft reset 64
 - sound recorder 116
 - sound recordet 58
 - sound settings 38
 - speaker 17
 - speaker mode 68
 - status icons 43

stylus	161
suspend mode	65
symbolologies	207

T

taking a panoramic photo	98
taking panoramic photos	98
touch mode	36
touchscreen	50
transferring files using USB	65
trigger handle	160
trigger handle kit	160
troubleshooting	201
TTY	82

U

unlocking the screen	60
USB	65
using a Bluetooth headset	68
using a wired headset	69
using the dialer	70

V

video settings	100
videos	97, 98
voicemail setup	81

W

wakeup sources	39
WEP	151
wi-fi network	151
wired headset	69
wireless local area network	144
WLAN	144
WPA	151

