Dolphin CT50
Mobile Computer
powered by Android™ 6.0 Operating System

User Guide
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Customer Support

Technical Assistance

To search our knowledge base for a solution or to log in to the Technical Support portal and report a problem, go to www.hsmcontactsupport.com.

For our latest contact information, see www.honeywellaidc.com/locations.

Product Service and Repair

Honeywell International Inc. provides service for all of its products through service centers throughout the world. To obtain warranty or non-warranty service, return your product to Honeywell (postage paid) with a copy of the dated purchase record. To learn more, go to www.honeywellaidc.com and select Service & Repair at the bottom of the page.

For ongoing and future product quality improvement initiatives, the terminal comes equipped with an embedded device lifetime counter function. Honeywell may use the lifetime counter data for future statistical reliability analysis as well as ongoing quality, repair and service purposes.

Note: For Non-Incendive models:

⚠️ Warning: Explosion Hazard - Substitution of components may impair suitability for Division 2 Class I, II, III locations.

⚠️ Avertissement: Risque d'explosion - La substitution de composants peut nuire à l'aptitude aux emplacements de Classe 2, Classe I, II et III

Limited Warranty

For warranty information, go to www.honeywellaidc.com and click Get Resources > Product Warranty.
This chapter introduces the Dolphin® CT50 Mobile Computer with the Android 6.0 operating system. Use this chapter to learn about the basic computer features, functions, and accessories.

**Dolphin CT50 Mobile Computer**

The Honeywell Dolphin CT50 Mobile Computer is an enterprise-focused smartphone that uses the Android operating system to provide reliable and secure management of corporate data and wireless communications. The CT50 offers key features such as a large display, long-lasting battery, bar code imager, and rugged durability.

Honeywell offers a Non-Incendive (NI) version of the CT50 for use in hazardous environments. The NI version of the CT50 has yellow scan buttons.

Throughout this manual, all versions of the mobile computer are referred to as the CT50 unless information is specific to a particular model.

The Dolphin CT50 features:

- Android 6.0 operating system
- 2 GB DRAM, 16 GB flash memory
- Large, sunlight-readable display with responsive multi-touch screen
- Glove operation touch screen
- High performance 2D imager with ergonomic scan buttons
- Software-definable LTE/UMTS or CDMA/EVDO wireless WWAN radio for high speed data and quality voice support across all network technologies
- IEEE 802.11a/b/g/n (ac if supported) radio
- Bluetooth 4.0 radio
- NFC technology for short-range wireless data exchange
- Value-added software components supporting specialized imaging and OCR functions
- Mid-tier rugged specifications with IP67 sealing
- Customer-accessible microSD™ slot for removable memory cards (up to 32 GB)
- Integrated GPS receiver (with WWAN radio option)
- 8-megapixel color camera
- Receiver Category 3 in accordance with EN 300 440-1
- Non-incendive version certified to Class I, II, III, Division 2, Groups A-G, -20 °C to +50 °C, T4A

**Features of the CT50**

![CT50 Features](image)

*Note:* The non-incendive version of the CT50 is identified by yellow scan buttons.
About The Battery

The computer uses a rechargeable 3.8 V Li-ion battery as its main power source. The battery has a 15.5 watt hour capacity. Several factors determine the life of your battery, such as display brightness, display timeout, input device, extreme temperature, and your usage.

Honeywell recommends that you keep the battery charged at all times to prevent data loss. When you change the battery, the computer automatically goes into a power-off state and then cold boots.

Contact your local sales representative for replacement batteries.

Caution: The battery used in this device may present a fire or chemical burn hazard if it is mistreated. Do not disassemble it, heat it above 100 °C (212 °F), or incinerate it. Dispose of used batteries promptly. Keep away from children.

Caution: We recommend the use of Honeywell Li-ion battery packs. The use of any non-Honeywell battery may result in damage not covered by the warranty. A non-Honeywell battery will not be charged in the device or in a Honeywell charger.

Warning: The battery pack must not be removed or installed while in a potentially hazardous location.

Avertissement: La batterie ne doit pas être retirée ni installée dans un site potentiellement dangereux.

Charge the Battery

Dolphin CT50 Non-Incendive

Warning: Explosion Hazard - Batteries must only be changed or charged in an area known to be non-hazardous. Use ONLY Honeywell CT50 battery Model 318-055-009.

Avertissement: Risque d’explosion - Les batteries doivent uniquement être remplacées ou rechargées dans un endroit non dangereux. Utilisez UNIQUEMENT Honeywell CT50 batterie modèle 318-055-009.
Dolphin CT50 HealthCare and All Other Versions

The Healthcare version of the Dolphin CT50 uses battery Model CT50-BTSC, part number 318-055-008.

All other versions of the Dolphin CT50 use battery Model CT50-BTSC, part number 318-055-005.

Charge Before Use

Make sure you fully charge the battery before you use your computer. You can charge the battery before or after you install it in the computer. It takes about 6 hours for the battery to fully charge in any of the accessories

• Insert the battery into a Quad Battery Charger or the battery well of an eHomeBase.

or

• Insert the computer with the battery installed into an eHomeBase, ChargeBase, NetBase, Quad Battery Charger, USB Adapter, or Vehicle Power Adapter.

Change the Battery

If your battery power is low, you need to either charge the battery in the computer, or replace it with a charged battery.

1. Save your files and close any open applications.
2. Press and hold the Power button. This screen appears:

3. Tap Power off. A screen appears informing you that the computer is shutting down.
4. Disconnect the hand strap from the bottom of the computer.

5. Press and slide the battery door toward the bottom of the computer to unlock the door.

6. Lift up on the edge of the battery and remove it from the computer.

7. Insert the charged battery into the computer.

8. Press in on the battery door and slide it into the locked position.
Battery Status Icon

Use the battery icon in the Status bar to see the power status of your battery. The table below only includes some of the icons. For more detailed information on your battery, go to Settings → Battery.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="Battery Icon" /></td>
<td>The battery charge is at 100%.</td>
</tr>
<tr>
<td><img src="image" alt="Battery Icon" /></td>
<td>The battery charge is at 50%.</td>
</tr>
<tr>
<td><img src="image" alt="Battery Icon" /></td>
<td>The battery is critically low. You need to replace the battery now.</td>
</tr>
<tr>
<td><img src="image" alt="Battery Icon" /></td>
<td>The computer is connected to external power and the battery is charging.</td>
</tr>
<tr>
<td><img src="image" alt="Battery Icon" /></td>
<td>There is a battery error. Install another battery. If the problem persists, call Honeywell Technical Support.</td>
</tr>
</tbody>
</table>

The Battery status LED in the upper right corner of the computer indicates the charging status of the battery. You can also use the Battery status LED as a notification LED. For more information on how to use the LED as a notification LED, see http://developer.android.com/guide/topics/ui/notifiers/notifications.html.

<table>
<thead>
<tr>
<th>Connected to Power</th>
<th>LED State</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Blinking amber</td>
<td>Battery level is below 20%</td>
</tr>
<tr>
<td>No</td>
<td>Off</td>
<td>Battery level is more than 20%</td>
</tr>
<tr>
<td>Yes</td>
<td>Steady amber</td>
<td>Battery level is between 0% and 60%</td>
</tr>
<tr>
<td>Yes</td>
<td>Blinking green</td>
<td>Battery level is between 60% and 95%</td>
</tr>
<tr>
<td>Yes</td>
<td>Steady green</td>
<td>Battery level is above 95%</td>
</tr>
<tr>
<td>Either</td>
<td>Blinking red</td>
<td>Battery error</td>
</tr>
</tbody>
</table>
Change the Battery Status LED Behavior

You can change the behavior of the Battery status LED if the default behavior for a charging battery (blinking green) is not acceptable to your environment.

In addition to the out-of-box Battery status LED behavior, you can choose:

• Default Battery LED
• No Battery LED

Use the Default Battery LED setting if you want the status LED to turn on steady amber and then steady green when charging. Select the No battery LED setting if you want to use the LED as a notification LED for applications or device management solutions.

<table>
<thead>
<tr>
<th>Connected to Power</th>
<th>LED State</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>Blinking red</td>
<td>Battery level is below 15%</td>
</tr>
<tr>
<td>No</td>
<td>Off</td>
<td>Battery level is 15% or more</td>
</tr>
<tr>
<td>Yes</td>
<td>Steady red</td>
<td>Battery level is below 15%</td>
</tr>
<tr>
<td>Yes</td>
<td>Steady amber</td>
<td>Battery level is between 15% and 90%</td>
</tr>
<tr>
<td>Yes</td>
<td>Steady green</td>
<td>Battery level is 90% or more</td>
</tr>
</tbody>
</table>

1. Tap All Apps > Settings > Battery LED.
2. Select one of these options:
   • Default Battery LED
   • HSM Battery LED (Out-of-Box setting)
   • No Battery LED

Check the Battery Level

In addition to the Battery status icons and the Battery status LED, you can get the battery status from the Settings App.

1. Tap All Apps > Settings.
2. Tap Battery. The current percentage of battery power remaining and the amount of usage time left on the battery appear on the screen. A list shows the battery usage for individual apps and services.

   For usage details, tap one of the apps or services in the list.
Battery Life and Conservation

If you store the batteries outside of the computer for long periods of time, they slowly discharge. Honeywell recommends storing the battery in a charger to maintain battery performance.

<table>
<thead>
<tr>
<th>When you want to:</th>
<th>Do this to save Battery Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use the computer and the low battery status icon appears or the battery light turns on.</td>
<td>Press and hold the Power button and then select <strong>Power off</strong> from the menu. After the computer turns off, remove the battery and insert a fully charged battery.</td>
</tr>
<tr>
<td>Stop using the computer for 5 minutes or more.</td>
<td>Make sure that the low battery status icon is not on the screen and that the battery status LED is not on. Press the <strong>Power</strong> button to suspend the computer.</td>
</tr>
<tr>
<td>Store the computer for more than a day.</td>
<td>If you are storing the computer for a few days (such as over the weekend), install a charged battery or connect the computer to a power source. If you are storing the computer for a longer period of time, remove and charge the battery. When the battery is done charging, store both the battery and the computer in a cool location. If you store the battery for several months, recharge the battery periodically to keep it at peak performance.</td>
</tr>
<tr>
<td>Store the battery outside of the computer.</td>
<td>Store the batteries in a charger.</td>
</tr>
</tbody>
</table>
Battery Recommendations and Safety Precautions

- Charge the battery before use. Battery ships with a partial charge only.
- See "Charge the Battery" on page 1–4 for approved charging methods. Use of this battery in other devices could result in damage to the device or battery.
- Avoid dropping the battery or computer. If you suspect that the battery or computer is damaged, send it to Honeywell service center for inspection.
- Replace this battery only with another CT50 battery as identified below. These batteries have been tested in accordance with applicable safety standards. Contact your Honeywell sales representative or distributor if this battery is no longer available.

<table>
<thead>
<tr>
<th>Version</th>
<th>Battery Model Number</th>
<th>Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Incendive</td>
<td>CT50-BTSC</td>
<td>318-055-009</td>
</tr>
<tr>
<td>Healthcare</td>
<td>CT50-BTSC</td>
<td>318-055-008</td>
</tr>
<tr>
<td>All Other</td>
<td>CT50-BTSC</td>
<td>318-055-005</td>
</tr>
</tbody>
</table>

- Discarded batteries may create a safety hazard. Before disposal, cover the battery contacts with electrical insulating tape.
- Do not modify the battery or attempt to insert foreign objects into it.
- Do not solder directly to the battery contacts.
- Do not short circuit the battery, and keep it away from metallic items.
- Do not drop the battery or apply mechanical shocks or pressure to it.
- Do not disassemble or open, crush, bend or deform, puncture, shred or burn the battery.
- Do not immerse the battery in water or get the battery wet.

Enable Airplane Mode

If you do not need to connect to any wireless networks, you can enable Airplane mode to turn off all the radios and save battery power.

1. Tap All Apps ☰ > Settings ☰.
2. In the Wireless & Networks section, tap More.
3. Tap the toggle box to enable Airplane mode.
Power On the Computer

The first time you power on the computer, a Welcome screen appears. Follow the prompts on the Welcome screen as the setup wizard has you:

• Set the default language.
• Set up the Wi-Fi network connections.
• Set the time, date, and time zone.
• Personalize (name) the computer.

After you have fully charged and installed a battery, power on the computer for the first time:

• Press and release the Power button.

Note: Once you complete the Setup Wizard, the Welcome screen no longer appears when you power on the computer. You will now see the Lock screen each time you power it on.

Unlock the Screen

Every time you power on the computer, you will need to unlock it.

• Swipe up on the screen to unlock it.
Set a PIN to Protect the Computer

After you start using the computer, you should set a PIN to secure apps and data on the computer.

1. Tap All Apps > Settings > Security.
2. Tap Screen lock. You can choose between these screen lock settings:
   - None
   - Swipe
   - Pattern
   - PIN
   - Password
3. Tap the screen lock of your choice and follow the screens to configure it.

Use Gloves with the Touch Screen

You can use gloves, including leather, when operating the touch screen on the computer. The gloves can be up to 2 mm (0.08 inches) thick. Use this procedure to set the touch screen to “glove mode.”

1. Press the flat part of the gloved finger to the touch screen. You want to have approximately 13 mm (0.51 inch) surface area touching the screen, almost as if taking a fingerprint.
2. Tap the screen subsequently to use it with your gloved hands.
3. Exit “glove mode” by tapping the screen with your bare finger.
The Good Read LED

The Good Read LED indicates the status of the scanner. For more information on how to scan bar codes, see Scan a Bar Code, beginning on page 35.

<table>
<thead>
<tr>
<th>LED Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green</td>
<td>Good read of a bar code.</td>
</tr>
<tr>
<td>Blinking green</td>
<td>The data collection engine is processing or starting up.</td>
</tr>
</tbody>
</table>

Configure the Screen Backlight

The display has an ambient light sensor that automatically adjusts the backlight intensity to conserve power and ensure the display is readable. You can set the backlight intensity level as needed for your environment.

1. Tap All Apps > Settings.
2. Tap Display > Brightness level.
3. Tap Adaptive brightness to use the ambient light sensor to automatically adjust the brightness for your work environment. Or, adjust the slider to set the brightness level.
Audio Features

The CT50 has a speaker, a microphone, and several software tools for configuring the volume of sounds.

Adjust Ringtone and Notification Volume

You can quickly adjust the volume of ringtone and notification sounds by using the side volume buttons.

Note: This method of adjusting the volume only affects the volume of ringtone and notification sounds. To change the volume for other sounds, open the Settings App and tap Sound > Volumes.

1. Press one of the buttons on the right side of the computer. The Volume slider appears at the top of the screen.

2. Press the volume buttons or adjust the slider to change the volume.
Enable Vibrate Mode

You can switch to Vibrate mode and disable the speaker if necessary for your working environment.

1. Press and hold the Volume down button until the computer vibrates. The vibrate mode icon 📡 appears in the upper left corner.

Audio Settings

This section describes the audio and sound settings you can configure in the Settings App. To change audio settings, start the Settings App and tap Sound & Notification.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sound</td>
<td>Use the sliders to set the volume for: music, video, games, and other media. alarms. ringtone and notifications. You can also use the side volume buttons to change the volume.</td>
</tr>
<tr>
<td>Do not disturb</td>
<td>Select to set which notifications to let through when you have Do not disturb turned on and when you want to be left alone.</td>
</tr>
<tr>
<td>Vibrate when ringing</td>
<td>Select to enable vibrate mode when the phone is ringing.</td>
</tr>
</tbody>
</table>
Insert a microSD Card

You can use a microSD card to increase file storage capacity or to install software. Honeywell recommends the use of Single Level Cell (SLC) industrial grade microSD or microSDHC memory cards with the computer for maximum performance and durability.

**Note:** Format the memory card before initial use.

1. Power off the computer.
2. Disconnect the hand strap from the bottom of the computer.
3. Press and slide the battery door toward the bottom of the computer to unlock the door.

4. Lift up on the edge of the battery and remove it from the computer.

5. Press down on the SD card door and slide it toward the top of the computer to open it.

6. Insert the microSD card into the door.

7. Press down on the SD card door and slide the door toward the bottom of the computer to lock it.

8. Insert the battery into the computer.

9. Press in on the battery door and slide it into the locked position.

10. Replace the hand strap.
Transfer Files

You can transfer files between your desktop PC and the computer with the Home-Base or USB adapter and a standard USB cable. When the computer is connected through USB, you can browse to it and drag-and-drop to move files back and forth to a Windows PC. If you are transferring files to and from a Mac, use the Android File Transfer application (available from www.android.com/filetransfer).

By default, the computer connects using MTP (Media Transfer Protocol). If you are transferring mainly camera images, you can configure the connection to use PTP (Picture Transfer Protocol). If your Windows PC does not support MTP, you may be able to transfer files using PTP instead.

1. Connect the CT50 to your PC.
2. On the CT50, swipe down from the top of the screen to see the notifications.
3. Tap **USB for charging**.
4. Select either **File transfers** or **Photo transfer** (PTP).
5. Browse to the CT50 from your PC. You can now copy, delete, or move files between the CT50 and your PC.

Browse Files on the Computer

You can use the File Browser application in Power Tools to browse the files on the computer and the microSD card.

*Note:* Due to system permissions, some files cannot be opened. Depending on the associated application, a choice of applications may be available to open the file.

1. Touch **All Apps > Power Tools** 📀 ➔ **File Browser** 📁.
2. Touch a folder name or file name to open it.
The CT50 and CT50h ship with a battery. All other accessories are ordered and shipped separately. For help, contact your local sales representative.

<table>
<thead>
<tr>
<th>Accessory</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT50 Battery, Non-Incendive (P/N 318-055-009)</td>
<td>The battery provides hours of power to the non-incendive version of the CT50. You may want to purchase spare battery packs for longer shifts.</td>
</tr>
<tr>
<td>CT50 Battery, Healthcare (P/N 318-055-008)</td>
<td>The battery provides hours of power to the non-incendive version of the CT50. You may want to purchase spare battery packs for longer shifts.</td>
</tr>
<tr>
<td>CT50 Battery (Model CT50-BTSC) (P/N 318-055-005)</td>
<td>The battery provides hours of power to the CT50. You may want to purchase spare battery packs for longer shifts. Not for use with the non-incendive version of the CT50.</td>
</tr>
<tr>
<td>eHomeBase (Model CT50-EB)</td>
<td>Use the eHomeBase to hold a computer with a battery installed, charge a spare battery pack, charge the main battery pack, and provide power to the mobile computer. The eHomeBase has a USB client connector as well as an Ethernet connector.</td>
</tr>
<tr>
<td>HomeBase (Model CT50-HB)</td>
<td>Use the HomeBase to hold a computer with a battery installed, charge a spare battery pack, charge the main battery pack, and provide power to the mobile computer. The HomeBase has a USB client connector.</td>
</tr>
<tr>
<td>ChargeBase (Model CT50-CB)</td>
<td>The ChargeBase is a 4-slot charging cradle that can power four computers, and charge their main batteries in 6 hours.</td>
</tr>
<tr>
<td>NetBase (Model CT50-NB)</td>
<td>The NetBase enables up to four computers to communicate with a host device over an Ethernet network. The NetBase also provides a second RJ45 Ethernet port for connection to an additional device such as a printer, workstation, or another NetBase.</td>
</tr>
<tr>
<td>Vehicle Power Adapter (Model CT50-MC)</td>
<td>Use the vehicle power adapter to charge the battery installed in the computer from the accessory port in your vehicle.</td>
</tr>
<tr>
<td>Vehicle Dock (Model CT50-MB)</td>
<td>Use the vehicle docks to hold and charge the computer while using it on a vehicle. The vehicle dock also contains a USB host port.</td>
</tr>
<tr>
<td>Quad Charger (Model CT50-QBC)</td>
<td>Use the quad charger to charge up to four batteries.</td>
</tr>
<tr>
<td>USB Adapter (Model CT50-USB)</td>
<td>Use this snap-on adapter to connect to a USB port for transferring data or charging your computer.</td>
</tr>
<tr>
<td>Scan Handle</td>
<td>Attach to a computer to have an easy way to grip the it and scan labels.</td>
</tr>
<tr>
<td>DEX Adapter (Model DEX-BLE-1)</td>
<td>Use the DEX adapter to easily connect to direct store delivery (DSD) receiving systems including DEX/UCS store systems, vending machines, and other retail equipment.</td>
</tr>
<tr>
<td>Holster</td>
<td>Use the holster to carry the computer hands-free in the work environment. You can choose between three different holsters.</td>
</tr>
</tbody>
</table>
CHAPTER 2

USER INTERFACE AND APPLICATIONS

Use this chapter to learn about the Android user interface and how to interact with the screen. You can also use this chapter to learn about the Honeywell applications on the computer.

User Interface

The Android 6.0 operating system provides a touch-friendly and easy-to-navigate user interface.

Home Screen

When you turn on the mobile computer, the Home screen is the first screen that appears after language provisioning is complete.
Navigation and Function Buttons

There are navigation and function buttons below the Favorites tray on the front panel of the computer.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>⬅️</td>
<td>Back</td>
<td>Takes you back to the previous screen.</td>
</tr>
<tr>
<td>☐️</td>
<td>Recent Apps</td>
<td>Lets you view and switch between recently used apps.</td>
</tr>
<tr>
<td>⬛️</td>
<td>Home</td>
<td>Returns you to the Home screen</td>
</tr>
<tr>
<td>🔍</td>
<td>Search</td>
<td>Starts a search on the computer or the internet.</td>
</tr>
<tr>
<td>☀️</td>
<td>Volume</td>
<td>Raises or lowers the volume of the speaker.</td>
</tr>
</tbody>
</table>
## Status Bar Icons

Status and notification icons show you the current status of your network, the battery, notifications, and sounds. Use this table to understand some of the available status icons.

<table>
<thead>
<tr>
<th>Icon</th>
<th>Description</th>
<th>Icon</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>🕒</td>
<td>Pending alarm and Alarm is set</td>
<td>⌚️</td>
<td>Vibrate mode is turned on</td>
</tr>
<tr>
<td>😊</td>
<td>New text message or multimedia message</td>
<td>🦅</td>
<td>Airplane mode is turned on.</td>
</tr>
<tr>
<td>⚠️</td>
<td>Error with text or multimedia message delivery</td>
<td>🔇</td>
<td>Bluetooth is turned on.</td>
</tr>
<tr>
<td>💌</td>
<td>New email</td>
<td>🟢</td>
<td>SD card is full</td>
</tr>
<tr>
<td>🍭</td>
<td>Computer is connected to a PC with a USB cable</td>
<td>📡</td>
<td>Wi-Fi network connected with full signal strength</td>
</tr>
<tr>
<td>🔄</td>
<td>Synchronizing data</td>
<td>🔱</td>
<td>Wi-Fi network connected but no signal strength</td>
</tr>
<tr>
<td>🍭</td>
<td>Error with sync or sign-in</td>
<td>📱</td>
<td>Phone connected with full amount of bars.</td>
</tr>
<tr>
<td>⚁️</td>
<td>Computer is connected with Ethernet</td>
<td>📱</td>
<td>Phone connected with full amount of bars but no internet connection.</td>
</tr>
</tbody>
</table>

## Remap a Button

You can change the default function of the Left Scan, Right Scan, or Camera buttons as well as the Back, Recent, Home, and Search function buttons.

1. Tap **All Apps 📦 > Settings 📷 > Key Remap.**
2. Touch the button you want to remap.
3. Tap **Keys or App** to view the available functions.
4. Select the function you want to assign to the button. The function you selected now appears under the button name.
View Notifications

You can view the notifications shade to see a list of events on the computer.

- To open the shade, swipe down from the top of the screen.
- To close the shade, swipe up from the bottom of the screen, or tap the Back or Home buttons.

Manage Notifications

When an app sends a notification to the computer, you can easily respond to it.

1. When a notification icon appears, swipe down from the top of the screen.
2. To respond to a notification, touch it. The associated app opens so that you can respond. To dismiss a notification, swipe it sideways.
Customize the Home Screen

You can add application icons to any Home screen to access them more easily.

1. Tap All Apps . The All Apps screen appears.
2. To add an app icon to a Home screen, touch and hold the icon for the app, and then slide your finger to place the icon on one of the Home screens.
3. To add a widget icon to a Home screen, press and hold your finger on an empty part of the Home Screen until three options appear at the bottom of the screen. Tap Widgets, scroll to select the widget you want, tap and hold the icon for the widget, and then slide your finger to place the widget icon on one of the Home screens.
4. To remove an app or widget from the Home screen, touch and hold the icon and slide it over Remove at the top of the screen.

Customize the Favorites Tray

You can add application icons to the Favorites tray to access them more easily.

1. Tap All Apps . The All Apps screen appears.
2. Tap and hold an icon in the Favorites tray, and slide it over X Remove at the top of the screen.
3. To add an app or widget icon to the Favorites tray, touch and hold the icon for the app or widget, and then slide your finger to place the icon in the Favorites tray.

Use Google™ Search

Use the Google Search field at the top of the Home screen to help you find anything you need on the computer or on the web.

1. At the top of any Home screen, tap Google to type your search term. As you type, suggestions from Google web search appear below the Search box, and results from the computer (such as apps or contacts) appear below the web search results.
2. Tap a suggestion to search for it immediately, or touch its arrow just to add the term to the search field without starting to search.
Screen Gestures

Use your fingers or the stylus to manipulate icons, buttons, menus, the on-screen keyboard, and other items on the screen.

- To select or activate something, tap it.
- To type something, such as a name or password, touch where you want to type. A keyboard appears that lets you type into the field.

Other common gestures include:

- Tap or touch and hold: Touch and hold an item by touching it and lifting your finger until an action occurs.
- Drag: Touch and hold an item for a moment. Without lifting your finger, move your finger on the screen until you reach the target position. For example, you can drag to reposition shortcuts on the Home screen.
- Swipe or slide: Quickly move your finger across the screen, without pausing when you first touch. For example, you can slide a Home screen left or right to view the other Home screens.
- Double-tap: Tap quickly twice on a web page, map, or other screen to zoom in. Double-tap again to zoom out.
- Pinch: In some apps, you can zoom in and out by placing two fingers on the screen at once and pinching them together (to zoom out) or spreading them apart (to zoom in).

Set the Time Zone

The computer gets the current date and time from its network connection. You can manually set the time zone for your location.

1. Tap All Apps > Settings.
2. Tap Date & time.
3. Tap Select time zone and select the time zone for your location.
Honeywell applications help you troubleshoot and connect your computer to other devices and networks. Many of the applications in this table are located in the Power Tools folder. For more information on Power Tools, look for Dolphin Power Tools on [www.honeywellaidc.com](http://www.honeywellaidc.com).

<table>
<thead>
<tr>
<th>Icon</th>
<th>Application</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>![App Icon]</td>
<td>ConfigApps</td>
<td>Provides a way to disable/enable apps and uninstall updates.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>AutoInstall Settings</td>
<td>Use to automatically install packages, APKS, and configure during the boot sequence.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>Configure Autorun</td>
<td>Configure which applications you want to run during the boot sequence.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>Backup</td>
<td>Backup and restore settings and user data.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>BattMon</td>
<td>Monitor the charge status of the battery.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>Demo</td>
<td>Use ScanDemo to demonstrate how the scanner works. You can use it to scan a bar code, set the symbologies it scans, and determine the computer response to a scanned bar code.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>Diagnostic Information</td>
<td>Use the DiagnosticInfo app to view device information, Honeywell Apps, Radio Information, Battery Information, Memory Information, and Scanner Information.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>EZConfig</td>
<td>Configure device and applications efficiently with bar code and configuration files.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>File Browser</td>
<td>Provides an efficient way to browse files on the computer.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>IPConfig</td>
<td>Use IPConfig to view network adapter information.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>LogView</td>
<td>Displays LogCat and Dmesg information in real time.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>Ping</td>
<td>Use Ping to verify communication links or to make sure a specific IP address is working.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>Route</td>
<td>Use Route to view and edit the rules that govern how packets destined for various subnets are routed.</td>
</tr>
<tr>
<td>![App Icon]</td>
<td>Wi-Fi Info</td>
<td>Provides Wi-Fi information on the computer.</td>
</tr>
</tbody>
</table>
Download Honeywell Launcher

Honeywell Launcher is an Android application, designed for Honeywell mobile computers, that provides a platform from which other applications may be launched while attempting to provide a locked-down environment. You can configure Honeywell Launcher for your specific application requirements. You can download and use Honeywell Launcher for a 60-day evaluation period. After the evaluation period expires, you will need to purchase a license. For more information on Honeywell Launcher, see the Launcher for Android User Guide available for download from www.honeywellaidc.com.

Unlock Developer Options

If you are a developer working with the computer, you can easily unlock the Developer options. The Developer options allow you to easily test and debug applications under development for the computer. After you unlock the developer options, a link to Developer options appears in the System menu.

1. Tap All Apps > Settings.
2. Tap About phone.
3. Tap Build number seven times. A popup message appears informing that you are now a developer.
Use this chapter to understand how to scan bar codes and how to configure the scanner.

The Scanner

The internal scanner can read 1D and 2D bar code symbologies, composite symbologies, and postal codes. It also supports omni-directional scanning for greater flexibility in real-world settings. The image engine can also capture black and white images, such as signatures and pictures of damaged inventory.

⚠️ Warning: Do not stare into the imager laser aimer.

How to Scan Bar Codes as Keyboard Input

The scan wedge feature sends scanned bar code data to an active application as Android keypad input. To scan a bar code as keyboard input, open an application that accepts text input and then scan a bar code. By default, scan wedging is enabled on the computer.

You can use applications that are coded to use the scanner or applications that receive data through the scan wedge feature. If an application claims the scanner through the BarcodeReader API, the scan wedge feature is temporarily disabled. You can find information on how to create custom applications for the computer in the Software Development Kit (SDK) available for download at www.honeywellaidc.com.
Change the Scanner Settings

Changes you make to the Default profile apply to all applications with no profile.

1. Tap All Apps > Settings.
2. Tap Scanning.
3. Tap Internal Scanner > Default Profile.
4. Select from the following:
   - Data Processing Settings
   - Symbology Settings
   - Decode Settings
   - Imager Settings
   - Trigger Settings
   - Notification Settings
5. Modify the settings to meet your application needs.

Restore Default Scanner Settings

You can easily discard all changes you made to the Default profile and restore the default values.

**Note:** When you select to restore the default values of one of the settings, it also restores the default values of all settings within the profile.

1. Tap in the upper right corner of any of the scan settings screens.
2. Tap Restore all defaults.

Scanner Default Settings

Use the following tables to understand the Data Processing Settings, Symbology Settings, Imager Settings, Trigger Settings, and Notification Settings.

Data Processing Settings

Use the Data Processing Settings to specify how bar code data is processed by the computer.
<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wedge</td>
<td>Enable or disable sending the bar code data as Android KeyEvents when sending data to the active application. The ENTER_DELAY command may be used to insert a delay between barcodes when wedging the bar code data into the keyboard buffer. More specifically, a delay of ENTER_DELAY is inserted whenever the Wedge encounters a carriage return, line feed, or tab key. Some applications, such as Excel, may require additional processing time when advancing to the next input field. Without a delay, data may arrive faster than the application can process the data. You can use the POSTAMBLE command to add a line feed at the end of each bar code. The units for ENTER_DELAY are milliseconds. The default value is 200ms. Customers set wedge mode configuration commands using an exm file.</td>
<td>Enabled</td>
</tr>
<tr>
<td>Charset</td>
<td>Select the character set to use when interpreting the bar code data into a string. Options include: - ISO-8859-1 - US-ASCII - UTF-16 - UTF-16BE - UTF-16LE - UTF-8 Corresponds to BarcodeReader property PROPERTY_DATA_PROCESSOR_CHARSET</td>
<td>ISO-8859-1</td>
</tr>
<tr>
<td>Prefix</td>
<td>Defines the string added before the decoded bar code data. Substitutions occur within the Prefix string values as follows: - \r is replaced by 13 - \n is replaced by 10 - \t is replaced by 9 - \ \ is replaced by '</td>
<td>None</td>
</tr>
<tr>
<td>Suffix</td>
<td>Defines the string added after the decoded bar code data. Substitutions occur within the Suffix string values as follows: - \r is replaced by 13 - \n is replaced by 10 - \t is replaced by 9 - \ \ is replaced by '</td>
<td>None</td>
</tr>
<tr>
<td>Wedge as Keys</td>
<td>List of character values to wedge as keys, represented as a comma-separated list of decimal values.</td>
<td>9,10</td>
</tr>
<tr>
<td>Setting</td>
<td>Description</td>
<td>Default</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
<td>---------</td>
</tr>
<tr>
<td>Data Editing Plugin</td>
<td>Specify a Total Freedom data editing plug-in.</td>
<td>None</td>
</tr>
<tr>
<td>Symbology Prefix</td>
<td>Specify a symbology identifier prefix to the barcode data. Options include: None, Honeywell, AIM</td>
<td>None</td>
</tr>
<tr>
<td>Launch Browser</td>
<td>Enable or disable URL bar code handling. If a bar code starts with http:// or https://, the browser opens using the bar code data as a URL. Corresponds to BarcodeReader property: PROPERTY_DATA_PROCESSOR_LAUNCH_BROWSER</td>
<td>Enable</td>
</tr>
</tbody>
</table>
| Scan to Intent | Enable or disable special handling of scan-to-intent bar codes. Applies to bar codes in one of the following formats:

- '//' ACTION
- '//' ACTION '$' extra-data

Where:
ACTION and extra-data are any string of characters. Launches an application listening for the intent:

Intent action:
"com.honeywell.scantointent.intent.action." + ACTION

Intent extra
"com.honeywell.scantointent.intent.extra.DATA" contains the remainder of the bar code data after the first '$' character.

Corresponds to BarcodeReader property: PROPERTY_DATA_PROCESSOR_SCAN_TO_INTENT | Enabled |
| Launch EZ Config | Enable or disable special handling of EZConfig bar codes. Applies to EZConfig bar codes, which are encoded with the Aztec symbology and containing specific header data. Corresponds to BarcodeReader property: PROPERTY_DATA_PROCESSOR_LAUNCH_EZ_CONFIG | Enabled |
Symbology Settings

Use the Symbology Settings to enable and disable bar code symbologies. Tap a symbology to view and modify the symbology configuration parameters.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code 128</td>
<td>Enabled</td>
</tr>
<tr>
<td>GS1-128</td>
<td>Enabled</td>
</tr>
<tr>
<td>Code 39</td>
<td>Enabled</td>
</tr>
<tr>
<td>DataMatrix</td>
<td>Enabled</td>
</tr>
<tr>
<td>UPC-A</td>
<td>Enabled</td>
</tr>
<tr>
<td>UPC-E</td>
<td>Disabled</td>
</tr>
<tr>
<td>EAN-8</td>
<td>Disabled</td>
</tr>
<tr>
<td>EAN-13</td>
<td>Enabled</td>
</tr>
<tr>
<td>Aztec</td>
<td>Enabled</td>
</tr>
<tr>
<td>China Post</td>
<td>Disabled</td>
</tr>
<tr>
<td>Codabar</td>
<td>Enabled</td>
</tr>
<tr>
<td>Codablock A</td>
<td>Disabled</td>
</tr>
<tr>
<td>Codablock F</td>
<td>Disabled</td>
</tr>
<tr>
<td>Code 11</td>
<td>Disabled</td>
</tr>
<tr>
<td>Code 93</td>
<td>Disabled</td>
</tr>
<tr>
<td>Composite</td>
<td>Disabled</td>
</tr>
<tr>
<td>GS1 Databar</td>
<td>Disabled</td>
</tr>
<tr>
<td>Han Xin</td>
<td>Disabled</td>
</tr>
<tr>
<td>IATA 2 of 5</td>
<td>Disabled</td>
</tr>
<tr>
<td>Interleaved 2 of 5</td>
<td>Enabled</td>
</tr>
<tr>
<td>Korean Post</td>
<td>Disabled</td>
</tr>
<tr>
<td>Matrix 2 of 5</td>
<td>Disabled</td>
</tr>
<tr>
<td>Maxicode</td>
<td>Disabled</td>
</tr>
<tr>
<td>Micro PDF 417</td>
<td>Disabled</td>
</tr>
<tr>
<td>MSI</td>
<td>Disabled</td>
</tr>
<tr>
<td>PDF 417</td>
<td>Disabled</td>
</tr>
<tr>
<td>QR Code</td>
<td>Disabled</td>
</tr>
<tr>
<td>Standard 2 of 5</td>
<td>Disabled</td>
</tr>
<tr>
<td>Telepen</td>
<td>Disabled</td>
</tr>
<tr>
<td>TLC 39</td>
<td>Disabled</td>
</tr>
<tr>
<td>Trioptic</td>
<td>Disabled</td>
</tr>
<tr>
<td>2D Postal Settings</td>
<td>Disabled</td>
</tr>
<tr>
<td>OCR</td>
<td>Disabled</td>
</tr>
</tbody>
</table>
## Decode Settings

Use the Decode Settings to scan bar codes that are densely packed. When enabled, the scanner will only decode a bar code if it is at the center of the aimer. Although you can adjust the Window dimensions, Honeywell recommends leaving the settings at 50 to define the “center” area for the bar code.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Center Decode</td>
<td>Enables the ability for the scanner to scan only the bar code at the center of the aimer.</td>
<td>Disabled</td>
</tr>
</tbody>
</table>

## Imager Settings

You should not need to modify the Imager Settings. The Override Recommended Values setting is disabled by default. The recommended Imager Settings are designed to work in a wide range of environments and should only be modified if you have an advanced understanding of imagers.

## Trigger Settings

Use the Trigger Settings to configure how the scan buttons work.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decode Timeout</td>
<td>Scanning automatically turns off after this number of seconds if the scan trigger is pressed and nothing has successfully decoded.</td>
</tr>
</tbody>
</table>

## Notification Settings

Use the Notification Settings to configure how your computer responds when you scan a bar code.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
<th>Default</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Read Notification</td>
<td>Enables or disables a good read notification. The notification consists of a green blink of the Good Read LED, a short beep, and an optional short vibration.</td>
<td>Enabled</td>
</tr>
<tr>
<td>Bad Read Notification</td>
<td>Enables or disables notification of a failed scan. The notification consists of a red blink of the Good Read LED, an error beep, and an optional short vibration.</td>
<td>Disabled</td>
</tr>
<tr>
<td>Vibrate Enabled</td>
<td>Enables or disables whether the computer vibrates when there is a good or bad read.</td>
<td>Disabled</td>
</tr>
</tbody>
</table>
Scan a Bar Code

The scanner has an aiming beam to help you correctly frame bar codes. It also supports omni-directional (360°) scanning to make it easier for you to scan bar codes.

**Note:** Before you start scanning bar codes, use the Settings App to enable only the bar code symbologies that you need.

1. Tap **All Apps > Demos > ScanDemo**.
2. Point the scanner window at the bar code and hold the computer steady a few inches from the label.
3. Press one of the **Scan** buttons or press **Scan** on the touch screen. Make sure the entire bar code is inside of the illumination frame.

When the scanner successfully reads a bar code, you hear a high beep and the Good Read LED turns on briefly.
You can use the phone feature to make and receive phone calls as well as transmit data through wireless wide-area networks (WWANs).

About the Phone

Phone features on the computer include a speaker and a microphone. You can also use a Bluetooth headset or hands-free kit. The phone feature is enabled by default.

The WWAN radio in your computer determines the supported network types:

- If your computer includes the UMTS/HSPA+ WAN radio, you can connect to UMTS networks.
- If your computer includes the Flexible Network Radio, you can connect to CDMA or UMTS networks in all regions that support these technologies. The Flexible Network Radio is a software-defined radio (SDR) that can be configured for CDMA or UMTS depending on your wireless communication needs.
- Honeywell supports Verizon in the United States (only) as a CDMA network carrier. For other carriers, contact Honeywell Technical Support.

After you turn on the phone and activate service with your wireless carrier, you can customize the phone features and network settings in the Wireless & Networks section of the Settings app.

*Note:* Both WWAN radios support Network Information and Time Zone (NITZ) messages to automatically set the system time.
Activate the UMTS Phone

Activating the UMTS phone (Model CT50LUN) on your CT50 is done the same way whether your computer has the Flexible Network Radio or the UMTS/HSPA+WAN radio.

Use a SIM card to activate the UMTS phone on the CT50. A SIM card can be purchased from your network provider.

1. Power off the computer.
2. Disconnect the hand strap from the bottom of the computer.
3. Press and slide the battery door toward the bottom of the computer to unlock the door.
4. Lift up on the edge of the battery and remove it from the computer.
5. Lift up on the SIM and MicroSD door.
6. Press down and slide the SIM door toward the top of the computer to open it.
7. Insert the SIM card in the door.

8. Close the SIM card door and slide it toward the bottom of the computer to secure it.

9. Replace the battery, reconnect the hand strap, and press the **Power** button to turn on the computer. The phone is now ready to use.
Activate the CDMA Phone

To activate the CDMA phone (Model CT50LFN) in your mobile computer, you need to contact your wireless carrier and set up an account.

You also need to provide the carrier with the Mobile Equipment Identifier (MEID) for the computer. You can find the MEID:

- on a label located in the battery compartment.
- on the outside of the computer shipping box.

*Note:* For the CDMA phone, settings are permanently stored in the WWAN radio after activation. CDMA settings persist through a factory data reset.

The activation process is slightly different for each CDMA carrier. Your carrier sales contact and an Honeywell representative can guide you through the process. In general, you activate the CDMA phone as follows:

1. Contact your wireless provider and give the provider the MEID for the computer.
2. If your carrier is Verizon, tap ☎️, enter *228 on the phone keypad, and tap ☎️. After a short wait, a message appears, confirming either success or failure of the activation. After successful activation, the phone is ready to use.

Make a Phone Call

Once the phone is activated, you can make a phone call.

1. On the Home or All Apps screen, tap ☎️. If the Phone app opens to a list of numbers instead of the keypad, swipe left or touch 📭 to return to the keypad.
2. Touch the keys to enter the number, and then touch 📩 below the keypad to dial.
3. To end a call in progress, tap 📠.

Answer the Phone

When you receive a phone call, the Incoming Call screen opens, showing the caller ID. All incoming calls are recorded in the Call log. If you miss a call, you receive a notification.

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

- To answer the call: ☎️
- To send the call to voicemail: 📧
- To send a message from a list of default text messages: 📭
Switch Apps During a Phone Call

You can switch apps while a phone call is in progress. For example, you can use the People app to look up contact information during your call.

**Note:** If you have only a WWAN connections, apps that need a data connection may be unable to access online data while the phone call is in progress. If simultaneous phone calls and stat connections are not possible due to provider limitations, voice calls receive priority. Check with your provider for more information.

- During a phone call, tap another app icon on the Home or All Apps screen to run that application. The green Phone icon appears in the Status bar while the call is underway.

Check the Voicemail

When you have a new voicemail message, the voicemail icon appears at the top left of the screen.

**Note:** Consult your service provider for more information on setting up your voicemail account.

1. Swipe down from the top of the screen to view your notifications. The voicemail notification shows the number of unread messages and a number to dial.
2. Touch **New voicemail**. The phone dials the number. Follow the instructions to retrieve your messages.

Set Your Voicemail Number

To access your voicemail, you must set your voicemail number in the Phone App.

**Note:** This procedure does not apply if you are a Verizon customer.

1. Tap 📞.
2. Tap ☎️ and then tap **Settings**. A list of call settings appears.
3. Tap **Voicemail > Setup > Voicemail number**.
4. If you are an AT&T customer, enter your voicemail number.
5. Tap **OK**.
Change Voicemail Settings

1. Tap 📞 on a Home or All Apps screen.
2. Tap ⬆️ and then tap Settings.
3. Tap Calls > Voicemail.
4. Tap the voicemail setting you want to change.

Make an Emergency Phone Call

You can use the phone to make an emergency phone call, even if the SIM card is missing from your UMTS phone or if you do not have a valid CDMA account. In either case, the phone shows that you have no service. However, if you dial certain emergency numbers (such as 112, 911, 000, 08, 118, 119, or 999) the call will go through.

Switch Between Network Carriers

If you have a service plan (and a SIM card if required) for a carrier other than your current provider, you can easily switch between network carriers with the Carrier Selection App.

1. Tap All Apps > Carrier Selection.

2. Select a carrier from the list and tap Apply Settings.
Configure Phone Settings

You can customize settings for the phone, including the ringtone, voicemail options, keypad tones, internet call settings, and other options.

1. Tap ✆.
2. Tap 📲 and then tap Settings. The Call settings menu appears.
3. Change phone settings as necessary.
Use this chapter to learn how to take pictures and record videos with the color camera.

Color Camera

The CT50 contains an 8-megapixel color camera for taking pictures and videos. The camera and flash are located on the back of the computer.

Use the Photos App 📸 to view photos and videos stored on the CT50.

Adjust the Camera and Video Settings

The camera and video settings are adjustable from within the Camera App.

How to Zoom

The camera zoom is controlled using a pinching motion on the touch screen. Place two fingers on the screen at the same time, and then:

• spread fingers apart to zoom in (enlarge and object).
• pinch fingers together to zoom out.
Change Camera Settings

You can change the camera settings for best results when taking pictures.

1. Press the **Camera** button or tap **All Apps** and then tap **Camera**.
2. Tap ⚡ to view the options for the camera.
3. Tap one of the icons to change basic camera settings.
   - **Timer**: Set the amount of time from when you tap the **Camera** icon until it takes a photo. Options for the timer are 3 seconds or 10 seconds.
   - **Grid**: Turn on a grid to help frame your photos. Options for the grid are enabled or disabled.
   - **HDR**: When HDR is enabled, the computer automatically captures multiple photos and combines them into one photo creating the best quality image possible. Options for HDR are enabled or disabled.
   - **Flash**: Turn on the flash and take photos in low light conditions. Options for flash are on, off, and automatic.

Take a Photo

1. Press the **Camera** button or tap **All Apps** and then tap **Camera**.
2. Using the screen as a viewfinder, move the computer until you see the image you want to capture.
3. Tap the screen to set the focus. By default, the camera senses the lighting in the environment and turns the torch on if needed.
4. Press the **Camera** button or tap 📷 to take a photo.
   - To view the picture, swipe the screen to the left.
   - To return to the Camera app, swipe the screen to the right.

Record a Video

This section explains how to record video with the camera in the computer.

1. Press the **Camera** button or tap **All Apps** and then tap **Camera**.
2. Swipe the screen to the right until the camera options appear in the left column.
3. Tap 🎥 to select video.
4. Tap 🎥 to begin recording video. To zoom in or out, pinch or spread your fingers apart.
5. When you are done recording, tap 🎥.
**Change Video Settings**

You can change the video settings for best results when recording video.

1. Press the **Camera** button or tap **All Apps** and then tap **Camera**.
2. Tap ✖.
3. Tap 📺 to view the options for video.
4. Tap the grid or the flash icon to turn the option on or off.
Use this chapter to learn how to configure the computer. You will also find information on how to configure network communications and wireless security.

How to Configure the Computer

You can configure many parameters on the computer such as the bar code symbologies it decodes, or the network settings. The values you set for these parameters determine how the computer operates.

You configure the computer using the Settings app.

Start the Settings App

The Settings app is located in the All Apps menu.

- Tap All Apps > Settings.

About the Structure of the Settings App

Use this section to learn about the structure of the Settings app so you can find parameters quickly.

<table>
<thead>
<tr>
<th>General Settings</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wi-Fi</td>
<td>Turns the Wi-Fi radio on and off. When Wi-Fi is turned on, tap the bar to see a list of Wi-Fi networks.</td>
</tr>
<tr>
<td>Bluetooth</td>
<td>Turns the Bluetooth radio on and off. When Bluetooth is turned on, tap the bar to see a list of Bluetooth devices in range.</td>
</tr>
<tr>
<td>Ethernet</td>
<td>Turns Ethernet on and off. When Ethernet is turned on, you can change the Ethernet settings and set up a proxy.</td>
</tr>
<tr>
<td>Data usage</td>
<td>Displays a list of phone data usage for the current data usage cycle. Tap the Data usage cycle list to select another date range.</td>
</tr>
</tbody>
</table>
### General Settings

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Airplane mode: Turns airplane mode on and off.</td>
</tr>
<tr>
<td>NFC: Turns on NFC which allows data exchange when the computer touches another device.</td>
</tr>
<tr>
<td>Android Beam: When NFC is enabled, this feature lets you beam app content to another NFC-capable device by holding the devices close together. The app determines what content gets beamed.</td>
</tr>
<tr>
<td>VPN: Sets the password parameters for a virtual private network (VPN).</td>
</tr>
<tr>
<td>Select Default ISO-DEP route: Determines whether the computer uses the host device or embedded secure elements for the card emulation mode.</td>
</tr>
<tr>
<td>Mobile networks: Includes settings for mobile networks, including enabling data access and roaming over mobile networks, selecting access points and network operators, or selecting only 2G networks (to save battery life).</td>
</tr>
<tr>
<td>Mobile plan: Provides information on your cell phone plan.</td>
</tr>
<tr>
<td>Cell broadcasts: Sets what emergency information you want to receive and how you want to receive it.</td>
</tr>
</tbody>
</table>

### Device Settings

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Display Settings for the brightness, wallpaper, sleep, press Power button for camera, daydream, font size, and when to rotate the screen.</td>
</tr>
<tr>
<td>Sound &amp; notification Settings for the phone and notification sounds, including tones and volume.</td>
</tr>
<tr>
<td>Apps Lists downloaded and running apps.</td>
</tr>
<tr>
<td>Storage &amp; USB Shows the remaining amount of storage.</td>
</tr>
<tr>
<td>Battery Shows battery usage data and the current battery state.</td>
</tr>
<tr>
<td>Memory Shows the average memory use and the memory used by apps.</td>
</tr>
<tr>
<td>Users Shows the users of the computer. You can easily add a user or profile.</td>
</tr>
<tr>
<td>Tap &amp; pay IF NFC is enabled, you can use this option to select your preferred payment app.</td>
</tr>
</tbody>
</table>

### Personal Settings

<table>
<thead>
<tr>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location Turns location services (Google and GPS satellite data) on and off.</td>
</tr>
<tr>
<td>Security Sets screen lock and administrator privileges.</td>
</tr>
<tr>
<td>Accounts Adds a Corporate or Email account to the CT50.</td>
</tr>
<tr>
<td>Google Sets up your Google accounts and services.</td>
</tr>
<tr>
<td>Language &amp; input Selects the active language and default keyboard. Sets auto-typing features such as capitalization and punctuation. Adjusts the pointer speed for an external mouse or trackpad.</td>
</tr>
<tr>
<td>Backup &amp; reset Restores factory default settings.</td>
</tr>
</tbody>
</table>
## Network Communications

You can use the mobile computer in your wireless or wired data collection network. You can connect your computer using:

- 802.11 radio communications.
- Ethernet communications.
- Bluetooth communications.
- USB and serial communications.

### Connect to a Wi-Fi Network

The computer has an 802.11 radio to transfer data using wireless communications. Before you connect to a Wi-Fi network, you need to know about your network security protocol and its required credentials. By default, the 802.11 radio is disabled.

1. Tap **All Apps** > **Settings** > **Wi-Fi**.
2. Slide the Wi-Fi switch to **On**. A list of discovered networks appears.
3. (Optional) To search for a network not in the list, tap ![Search icon] (3) tap **Add network**, type the network name, and then tap **SAVE**.

<table>
<thead>
<tr>
<th>Honeywell Settings</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key remap</td>
<td>Remaps the Left Scan, Right Scan, and Camera buttons. You can also remap the Back, Recent, Home, and Search function buttons. For help, see <strong>Remap a Button</strong>, beginning on page 23.</td>
</tr>
<tr>
<td>Smart sensors</td>
<td>Configures the integrated motion detection sensors for advanced power management.</td>
</tr>
<tr>
<td>Battery LED</td>
<td>Configures the battery LED behavior.</td>
</tr>
<tr>
<td>Battery Monitor</td>
<td>View the battery charge and battery information such as serial number and internal temperature.</td>
</tr>
<tr>
<td>Logger</td>
<td>Activates a logging service that creates an Android logcat log and kernel log for APP and system troubleshooting.</td>
</tr>
<tr>
<td>Scanning</td>
<td>Configures the computer imager. For help, see <strong>Change the Scanner Settings</strong>, beginning on page 30.</td>
</tr>
<tr>
<td>Web applications</td>
<td>Enables the web interface settings and lets you set a port.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>System Settings</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date &amp; time</td>
<td>Configures all date and time settings</td>
</tr>
<tr>
<td>Accessibility</td>
<td>Sets accessibility levels, such as larger display text and enabling text-to-speech output.</td>
</tr>
<tr>
<td>Printing</td>
<td>Configure the printing options.</td>
</tr>
<tr>
<td>Developer options</td>
<td>Enables developer-specific options such as USB debugging and SD card protection.</td>
</tr>
<tr>
<td>About phone</td>
<td>Provides information about your phone settings.</td>
</tr>
</tbody>
</table>
4. Tap a network name in the list to view details:

If the network is secured, a list of required information appears (such as a certificate name, a password, or other credentials). To connect to the secured network, enter the required information and tap **Connect**.

- To leave a connected network, tap **Forget**. For example, you could choose to forget a network you no longer use.
- To close the network details screen, tap **Cancel**.

**Configure Proxy Settings for a Wi-Fi Network**

If you need to connect to network resources through a proxy server, you can configure settings for the proxy server for each Wi-Fi network you add. By default, the Wi-Fi networks you add are not configured to connect through a proxy server.

*Note:* Proxy settings apply only to the Wi-Fi network you modify. You must change proxy settings for each network requiring a proxy server.

1. Tap **All Apps** > **Settings** > **Wi-Fi**. The list of available Wi-Fi networks appears.
2. Tap and hold the name of a connected network and then tap **Modify network**.
3. Tap **Advanced options**.
4. If the network has no proxy settings, tap **None** in the **Proxy Settings** list, and then tap **Manual** in that list.
5. Enter the proxy settings for the network.
6. Tap **Save**.
Disable Wi-Fi Notifications

By default, when Wi-Fi is enabled, you receive notifications in the Status bar when the computer discovers a wireless network. You can disable these notifications.

1. Tap All Apps > Settings > Wi-Fi.
2. Tap ⚙ and then tap Advanced. The Advanced Wi-Fi menu appears.
3. Tap the Network notification slider to disable notifications.

Connect to an Ethernet Network

To connect the computer to an Ethernet network, you need an Ethernet dock.

1. Make sure the dock is connected to your Ethernet network.
2. Place the computer in the dock.
3. Tap All Apps > Settings > Ethernet and make sure that the Ethernet slider is in the On position (Ethernet is enabled by default).
4. When the switch turns blue, Ethernet is enabled.
5. Tap Ethernet Settings. The Ethernet list shows the name of the current Ethernet connection. By default, the computer assumes a DHCP connection, and that your network has assigned an IP address automatically. If DHCP is working, the Ethernet dock should indicate that communication with the network is occurring.
6. (Optional) To assign a static IP address, tap the connection name (for example, eth0). The IP settings dialog box appears.
   a. Tap DHCP and then select Static from the list.
   b. Enter the required network information and then tap Apply.

How to Connect to Virtual Private Networks

The computer supports connecting to virtual private networks (VPNs). This section describes how to add and connect to VPNs. To configure VPN access, you must obtain details from your network administrator. You view and change VPN settings in the Settings App.

**Note:** Before you can access VPNs, you need to set a lock screen PIN or password.
Add a VPN

Before you can connect to a VPN, you must add VPN information.

1. Tap All Apps > Settings.
2. In the Wireless & Networks section, tap More.
3. Tap VPN.
4. Tap + to open the Edit VPN profile screen.
5. Enter information for the VPN.
6. Tap Save. The VPN name appears in the VPN list.

Connect to a VPN

1. Tap All Apps > Settings.
2. In the Wireless & Networks section, tap More.
3. Tap VPN.
4. Tap the name of the VPN in the list, and enter any necessary credentials when prompted.
5. Tap Connect. The computer connects to the VPN, and a Status icon and notification appear.
6. To disconnect from the VPN, tap the notification.

Wireless Security

The computer provides these security solutions for your wireless network:

- Wi-Fi Protected Access 2 (WPA2™)
- Wi-Fi Protected Access (WPA)
- 802.1x
- LEAP
- WEP

Honeywell recommends WPA2 security with PSK (Personal) or 802.1x (Enterprise) key management.

Before you set security, you need to enable the radio, set the date, and set the SSID on your computer. To use 802.1x security, you need to load a root certificate on your computer. To use transport layer security (TLS) with 802.1x security, you also need to load a user certificate.

Use the Settings App to access and configure all wireless security settings.
Certificates

You can use digital certificates to identify the computer for network access or authentication to servers. To use a certificate to identify your device, you must install it in the trusted credential storage on the computer.

Android supports DER-encoded X.509 certificates saved in files with a .crt or .cer file extension. To install a valid certificate with a .der or .it. Android also supports X.509 certificates saved in PKCS#12 key store files with a .p12 or .pfx extension. To install a valid key store file with another extension, you must change the extension to .p12 or .pfx to install it. When you install a certificate from a PKCS#12 key store, Android also installs any accompanying private key or certificate authority certificates.

Load a Certificate

To use a certificate, you must install it in the trusted credential storage on the computer.

**Note:** Apps such as Email and Browser that support certificates allow you to install certificates directly from within the App. For more information, see the Help that comes with the App.

1. Copy the certificate or key store from your PC to a microSD card.
2. Install the microSD card in the computer and turn the computer on.
3. Start the Settings App and tap **Security > Install from SD card**.
4. Tap the name of the certificate or key store to install it. If prompted, enter the key store password and tap **OK**.
5. Enter a name for the certificate and tap **OK**.

Disable or Remove Certificates

If a certificate is compromised, or your organization chooses not to trust it, you can disable or remove it.

1. Start the Settings App and tap Security > Trusted credentials. The trusted credentials screen has two tabs:
   - **System** shows CA certificates that are installed in the ROM.
   - **User** shows CA certificates you have installed yourself.
2. Tap the name of the certificate to disable or remove. The certificate details screen appears.
3. Scroll to the bottom of the details screen and tap **Disable** (for System certificates) or **Remove** (for User certificates).
4. If necessary, you can enable a disabled System certificate from this location. If you remove a User certificate, you must install it again to enable it.
5. Tap **OK**.

**Bluetooth Communications**

The computer is Bluetooth-enabled, which lets you connect to other Bluetooth devices.

You need to turn on the Bluetooth radio before you can discover and connect to Bluetooth devices. By default, the radio is turned off.

The Bluetooth radio maintains its current state through a system reset. If you perform a factory data reset, you must recreate pairings to devices.

The System bar icons indicate Bluetooth status.

**Connect a Bluetooth Device**

To connect to a Bluetooth device, you must enable Bluetooth and then select the device from a list of discovered devices.

1. Tap **All Apps** > **Settings** > **Bluetooth**.
2. If Bluetooth is off, slide the Bluetooth switch on. A list of available Bluetooth devices appears.

3. (Optional) If the device you want does not appear in the list, make sure the device is turned on and discoverable, and tap **Refresh**.
4. Tap a device in the list to select it. If a pairing request message appears, enter the device PIN and tap **OK**. When the device is paired with the computer, the device name appears in **Paired Devices** at the top of the list.

5. To disconnect a paired device, tap the name of the paired device and then tap **OK** when the **Disconnect** screen appears.

### Configure Bluetooth Settings

You configure Bluetooth settings in the Settings App.

1. Start the Settings App and tap **Bluetooth**.
2. Tap the Menu icon and select a setting from the menu:
   - Tap **Rename this device** to change the device name. Type the new name and then tap **Rename**.
   - Tap **Show received files** to view statistics on the received files.

### Rename or Disconnect a Paired Device

You can rename or disconnect a paired Bluetooth device from the Settings App.

1. Open the Settings App and tap **Bluetooth**.
2. Tap the Settings icon next to the paired device.
   - To rename the device, type the new name, and then tap **OK**.
   - To disconnect the device, tap **Forget**.
Serial and USB Communications

You can use these accessories to transmit data to and receive data from another device through serial or USB communications:

- vehicle dock
- HomeBase
- Ethernet HomeBase
- USB snap-on adapter
- RS-232 DEX adapter

For information on these accessories, contact your local sales representative or go to www.honeywellaidc.com

If you have a problem with your PC recognizing the USB device, you can download and install the Honeywell-aidc-usb-driver.

The driver is part of the Honeywell_MobilitySDK_Android software .zip file.

Near Field Communication (NFC)

NFC technology provides the ability for short-range, wireless data transfer between the CT50 and NFC tags or other NFC enabled devices placed in close proximity to the back of the computer. NFC equipped CT50 models support the following modes of operation:

- **NFC tag reader/writer mode**: The computer reads and/or writes digital information from or to an NFC tag.
- **Peer-to-Peer (P2P) mode**: The computer uses Android Beam and/or Bluetooth technology to transfer screen content (such as a picture, contact information, Web page url, or file) between NFC enabled devices.
- **NFC card emulation mode**: The computer emulates an NFC card (smart card) that an external card reader can access. You have the option to enable the embedded secure element (eSE) SmartMX™ or Host Emulation. Secure element implementation is commonly used for financial transactions or coupon and loyalty mobile marketing applications that require a secure memory and execution environment for the storage of personal information (such as account information and credentials) and running custom smart card applets.

*Note:* Sleep Mode (Suspend Mode) and the screen lock temporarily turns the NFC radio off.
Use this chapter to understand how to upgrade software, reset the computer, and maintain the computer.

Upgrade the System Software

Upgrades for Power Tools and other system software on the computer are provided as .zip files and are available from Technical Support (www.hsmcontactsupport.com) or www.honeywellaidc.com.

1. Copy the upgrade .zip file into one of these folders on the computer:
   - Internal storage\honeywell\autoinstall
   - IPSM card\honeywell\autoinstall
   - \honeywell\autoinstall (on a microSD card if installed)
2. Tap All Apps > AutoInstall Settings.
3. Verify that Autoinstall is enabled.
4. Select Packages Update from the screen. The CT50 automatically initiates a reboot and installs the software upgrade.

Restart the Computer

If the computer or an application locks up, or if the computer does not respond when you press the Power button, you may need to restart the computer.

The computer uses the configuration currently saved in flash memory during the boot process. Try these methods, in order, to restart the computer:

- **Reset:** Restarts the computer and goes through the initialization process.
- **Clean boot:** Completely erases the computer memory, including all applications and data files, except those in the Flash File Store or any removable storage.
Reset the Computer

You may need to restart the computer to correct conditions where an application stops responding to the system.

1. Save your files and close any open applications.
2. Press and hold the Power button. This screen appears:

![Power off and Reboot options]

3. Tap Reboot.
4. When prompted that the CT50 will reboot, tap OK. The computer reboots and restarts.
Clean Boot the Computer

If the computer seems to be locked up, try cold booting it. If reset does not work, use a clean boot to get the computer up and running for further troubleshooting.

Since a clean boot can result in data loss, only perform this procedure if all other recovery methods have failed. All personal content is erased (such as emails, pictures, contacts) and factory default settings are removed.

Before you perform a clean boot, make sure you have:

- waited 24 hours if you have recently updated or reset your Google Account password.
- your screen lock password, pattern, or PIN.
- backed up your data and settings in case you need to restore them.
- a fully charged battery or an external power connection.
- an Internet connection.

**Caution:** A clean boot erases the memory on the computer, including all applications and data files with the exception of those found on any removable storage.

1. Tap All Apps > Settings.
2. Tap Backup & Reset.
3. Tap Factory Data Reset.
4. If you want to erase all data in the IPSM, select the Erase IPSM check box.
5. Tap Reset Phone.
6. If prompted, type your screen lock security pattern, PIN, or password and tap Next ( ).
7. Tap Erase Everything. The computer tells you that it is performing a factory data reset. The computer restarts at the initial set up screen.
Clean the Computer

To keep the computer in good working order, you may need to clean the scanner window, color camera window, and the touch screen. Clean the windows and the touch screen as often as needed for the environment in which you are using the computer. The computer will withstand application of the following cleaning agents when applied to a clean soft cloth and removed immediately with a dry soft cloth:

- Acetic acid, 10% in water
- Ethyl alcohol, 10% in water
- Mild soap solutions

Caution: There are no user-serviceable parts inside the computer. Opening the computer will void the warranty and may cause damage to the internal components.

Note: You must leave the battery installed when you clean the computer. Leaving the battery installed helps prevent fluids from entering the computer through the microSIM card and microSD card connectors.

1. Press the Power button to suspend the computer.
2. Dip a clean cloth towel in the cleaning agent and wring out the excess.
3. Wipe off the scanner window, camera lens, and flash area. Do not allow any abrasive material to touch these surfaces.
4. Wipe dry.
5. Let the computer completely air dry before using again.
Physical and Environmental Specifications

This section lists the physical and environmental specifications for the CT50.

**CT50 Physical Dimensions**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>160 mm</td>
</tr>
<tr>
<td>Width</td>
<td>82.5 mm</td>
</tr>
<tr>
<td>Depth</td>
<td>19 mm</td>
</tr>
<tr>
<td>Weight (with battery)</td>
<td>342 g (including battery)</td>
</tr>
</tbody>
</table>

**CT50 Tumble and Drop Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tumble specification</td>
<td>1000 1 m tumbles</td>
</tr>
<tr>
<td>Drop specification</td>
<td>5 ft multiple drops to unyielding steel plate, -10 to +50 °C temperature range and 4 ft drop at 20 °C</td>
</tr>
</tbody>
</table>

**CT50 Power and Electrical Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Battery Pack</td>
<td>Rechargeable Lithium-ion 3.8 V, 4040 mAh battery</td>
</tr>
</tbody>
</table>

**CT50 Temperature and Humidity Specifications**

<table>
<thead>
<tr>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating temperature</td>
<td>-20 °C to 50 °C (-4 °F to 122 °F)</td>
</tr>
<tr>
<td>Storage temperature</td>
<td>-30 °C to 70 °C (-22 °F to 158 °F) For maximum battery life, store at 23 °C (73 °F) at 50% charge.</td>
</tr>
<tr>
<td>Relative humidity (operating)</td>
<td>0% to 95% non-condensing</td>
</tr>
<tr>
<td>Environmental rating</td>
<td>IP67, Category 1</td>
</tr>
</tbody>
</table>
CT50 Non-Incendive Computer Specifications
The CT50 mobile computers with non-incendive (NI) certification comply with the following specifications for North America and Canada regions only.

<table>
<thead>
<tr>
<th>Location</th>
<th>Suitable for use in Division 2 locations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>SGS Listing - ISA/ANSI 12.12.01, CAN/CSA C22.2 No 213-15</td>
</tr>
<tr>
<td>Gases</td>
<td>Class I - Groups A, B, C, D</td>
</tr>
<tr>
<td>Dusts</td>
<td>Class II - Groups E, F, G</td>
</tr>
<tr>
<td>Fibers and Flyings</td>
<td>Class III</td>
</tr>
<tr>
<td>Maximum Ambient</td>
<td>T4A rating for ambient temperature range -</td>
</tr>
<tr>
<td>Temperature</td>
<td>20°C to 50°C</td>
</tr>
</tbody>
</table>

Screen Specifications
4.66-inch TFT color LCD with backlight, 720-pixel HD, outdoor viewable touch screen.

Language Support
World-wide English, French, German, Italian, Spanish, Simplified Chinese, Traditional Chinese.

Bar Code Symbologies Supported
The computer supports these bar code symbologies:

1D Symbologies
- Codabar
- Code 3 of 9
- Code 11
- Code 32
- Code 93
- Code 128
- EAN-8
- EAN-13
- GS1-128
- GS1 DataBar
- Korea Post
• IATA 2 of 5
• Industrial 2 of 5
• Interleaved 2 of 5
• ISBN
• ISBT 128
• Matrix 2 of 5
• MSI
• Telepen
• Trioptic Code
• UPC-A
• UPC-E

2D Symbologies
• Aztec Code
• Codablock A
• Codablock F
• DataMatrix
• HanXin
• Maxicode
• Micro PDF 417
• MicroQr
• PDF 417
• QR Code
• TLC39
• OCR-A
• OCR-B

Postal Codes
• Australian Post
• Canadian Post
• KIX (Netherlands Dutch) Post
• Japanese Post
• British Post
• Planet Code
• Postnet
• UsIntelligent
Imager Reading Distances

The guaranteed depth of field measurements were taken using these parameters:

- Distances are measured from the front of the engine.
- 23 °C (73 °F), 0 lux
- Photographic quality codes

**Note:** Time to Read and Depth of Field are impacted if the bar code symbol is at the edge of the image.

### White Illumination Monochrome Sensor Only - Guaranteed Specs

<table>
<thead>
<tr>
<th>Barcode Type</th>
<th>Guaranteed Range</th>
<th>Typical Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 mil Code 39/128</td>
<td>3.6 (9.1)</td>
<td>5.6 (14.2)</td>
</tr>
<tr>
<td>10 mil Code 39/128</td>
<td>1.9 (4.8)</td>
<td>12.0 (30.5)</td>
</tr>
<tr>
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<td>7.3 (18.5)</td>
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### White Illumination Monochrome Sensor Only - Typical Specs

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<th>Barcode Type</th>
<th>Guaranteed Range</th>
<th>Typical Range</th>
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