



Thor VM3A

Vehicle-Mounted Computer
powered by Android™

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 computer 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.

Limited Warranty

For warranty information, go to www.honeywellaidc.com and click **Get Resources > Product Warranty**.

ABOUT THE COMPUTER FEATURES

This chapter introduces the Thor VM3A Vehicle-Mounted Computer. Use this chapter to learn about the basic computer features and functions.

About the Thor VM3A Vehicle-Mounted Computer

The Thor VM3A Vehicle-Mounted Computer (VMC) is a rugged, vehicle mounted computer powered by Android and capable of wireless data communications from a fork-lift truck or any properly configured vehicle. VM3A is built on the Mobility Edge™ platform and can deliver real-time connectivity, advanced data capture, and future-proof investment protection. The computer is equipped for fast Wi-Fi connectivity with a WLAN 802.11 a/b/g/n/ac radio and Bluetooth (v5.0) technology that includes Bluetooth Low Energy (BLE) support.

The computer is designed for use with a vehicle dock. The dock installs in the vehicle, connects to vehicle power, and provides conditioned input power for the computer. The VM3A is designed to be easily removed from the dock and be moved from one vehicle dock to another.



Caution: Before shipping the Thor VM3A, be sure to **Disconnect the UPS Battery**.

VM3A contains a UPS battery which, when fully charged, can power the computer for a minimum of 15 minutes for when the computer is not attached to a dock, is being switched to another dock, or the vehicle power is interrupted.

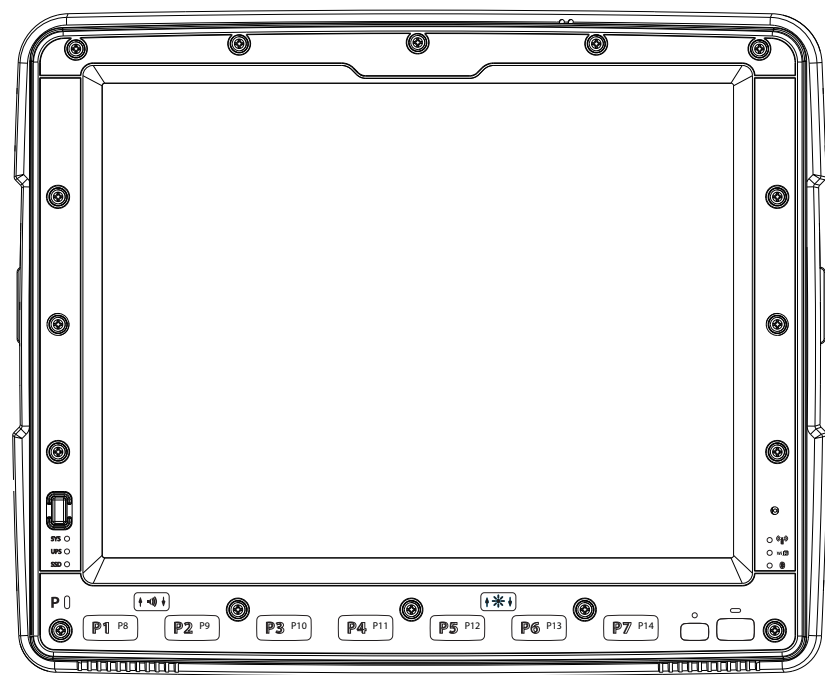
Model Overview

Available Features
Android 9 operating system, upgradeable through Android R
2.2 GHz Qualcomm Snapdragon™ 660 octa-core processor
4GB RAM, 32 GB flash memory
User accessible microSD card up to 512 GB (SDXC/SDHC-compliant)
WXGA displays available for indoor and brighter outdoor options
Integrated ambient light sensor, accelerometer, gyroscope3, and magnetometer
WLAN IEEE 802.11 a/b/g/n/ac radio; Wi-Fi certified
Bluetooth™ V5.0 and Bluetooth Low Energy (BLE) technology support
NFC technology for short-range wireless data exchange
Mid-tier rugged specifications with IP66 sealing
Audio for headset, integrated stereo speakers with adjustable volume control, and integrated microphone

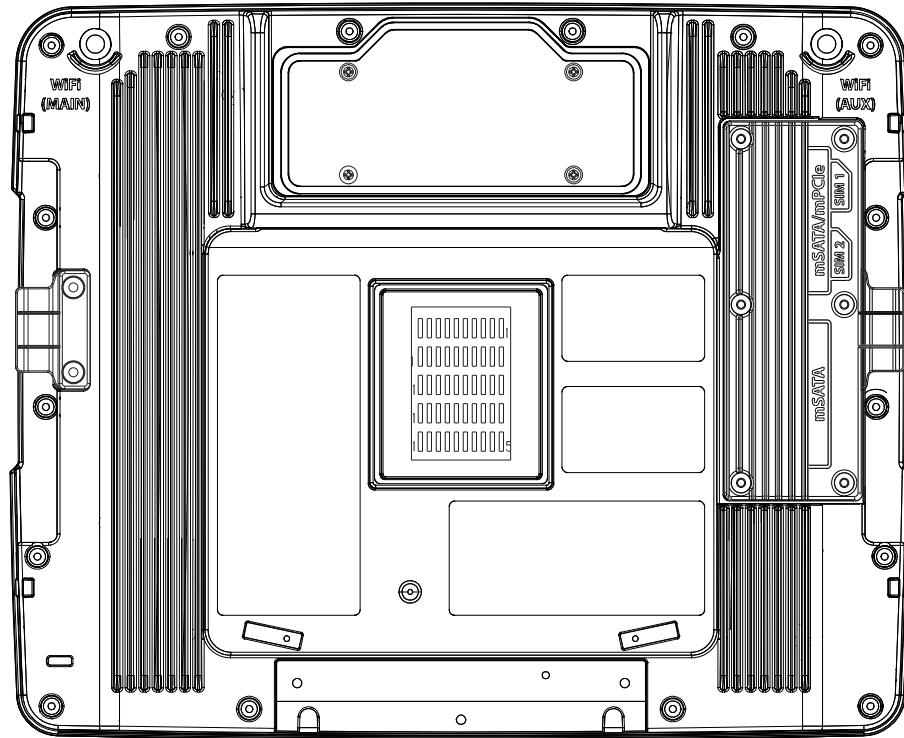
Note: To learn more, see [Specifications and Reference Materials](#) beginning on page 135.

Features of the VM3A

Front View - Thor VM3A



Back View - Thor VM3A



Top Service Cover

By removing the top service cover, you can gain access to:

- The SDcard slot (for a microSD card)
- The UPS disconnect button, named “Shipping Mode Button”

Left-Hand Side Service Cover

Contains a switch that determines which USB port will be used for ADB or USB purposes.

- The micro-USB connector
- The USB port of the QM1 or QM3 Dock

The micro-USB connector is located here as well.

Power Management Modes

The Thor VM3A has three power modes: On, Sleep, and Off.

On Mode

When the computer is attached to vehicle power, external power supply, or is operating from the UPS battery and the power button is pressed, the computer is in the On mode. In this mode, the keypad, touch screen, and any attached peripherals, such as a scanner, function normally. The display remains On unless the unit transitions to Sleep Mode or screen blanking is activated.

When in On mode, the status LED is solid green.

Sleep Mode

When the computer enters Sleep mode, all LEDs are off. Sleep mode occurs when the power button is pressed momentarily or the inactivity timer expires.

When in Sleep Mode, the status LED:

- is green, if external power is attached
- is off, if external power is not attached

To wake the computer from Sleep Mode, momentarily press the power button.

Off Mode

When the power button is held, an option menu appears, and Power Off is selected.

The computer is also Off when it is not connected to a power source and the UPS battery is depleted. However, an internal Real Time Clock (RTC) powered by an internal battery, maintains the date and time while the computer is Off.

Note: *To achieve optimal battery life, Honeywell recommends that end-users power-down/turn the units off at the end of the shift/use.*

About the Power Supply

Vehicle DC Power Supply

Vehicle power input for the dock is 10V to 60V DC and is accepted without the need to perform any manual operation within the dock, see [12-48 VDC Vehicles \(10-60 VDC Direct Connection\)](#). The dock provides a regulated power output for the VM3A. By using a specified DC/DC power supply, input voltage of 50-150V DC can be accepted, see [60-144 VDC Vehicles \(50-150 VDC Power Supply, Screws on Side of Lid\)](#) or [60-144 VDC Vehicles \(50-150 VDC Power Supply, Screws on Top of Lid\)](#).

Input power to VM3A is fused for protection and the fuse is externally accessible, see [Fuse](#).

External AC Power Supply

If DC power is not available, for example, in an office environment, an optional external Universal Input Power Supply can be used to convert AC wall outlet to an appropriate DC level. AC to DC power input for the computer is delivered to the dock via an optional external power supply and adapter cable. See [External AC/DC Power Supply](#). The external power supply should be used with the VMXD Dock.

Uninterruptible Power Supply

- The VM3A contains an internal UPS battery backup. The user can [Replace the UPS Battery](#).
- The UPS battery is automatically charged when the computer is placed in a powered dock, provided the [Safe Charging Temperature Range](#) is met.
- When external power is removed, the UPS automatically powers the computer with no user intervention. When running on UPS power, the power management timeouts may be different than when vehicle power is applied.
- The UPS allows the computer to continue operation when not mounted in a dock or when the vehicle battery is being swapped. When fully charged, the UPS battery is designed to power the computer for a minimum of 15 minutes at temperatures of 20°C (68°F) or greater.
- If operating on UPS power and the UPS battery becomes critically low, the computer performs a controlled shutdown.
- If there is no external power available, there must be 10% or greater power in the UPS battery or the computer does not power On.
- The UPS status LED and the Battery Control Panel can be used to monitor the status of the UPS battery.



Caution: Safety requirements restrict the temperature at which the Li-Ion UPS battery can be charged. Charging is disabled if the temperature is outside of the 0° to 35°C safe charging range. In order to maintain UPS charge, the Thor VM3A should have power applied while the unit is within the safe charging range for at least an hour each day.

Safe Charging Temperature Range

The internal temperature of the VM3A is the trigger for UPS battery charging.

- The UPS battery is not charged when the internal temperature is below 0°C (32°F). This corresponds to an ambient (room) temperature of approximately -10°C (-14°F).
- The UPS battery is not charged when the internal temperature is above 40°C (104°F). This corresponds to an ambient (room) temperature of approximately 35°C (95°F).
- If the UPS battery cannot be charged due to a temperature extreme, the [UPS Status LED](#) is amber. Move the VM3A to a different location to charge the UPS battery.

Charging Timeout

- A fully discharged UPS battery normally recharges in less than 4 hours when the computer is in a powered dock and within the safe charging temperature range.
- If the UPS battery is not charged before an 8 hour timeout period expires, the [UPS Status LED](#) is amber.
- The charge timeout is reset if charging resumes upon application of external power.
- The charge timeout is reset if charging resumes when the computer enters the permissible temperature range for charging.
- If the charge timeout occurs frequently, the UPS battery should be replaced.

Charging and Power Management

Charging of the UPS battery continues when the computer is in power management (Display Off or Sleep mode).

Backup Battery

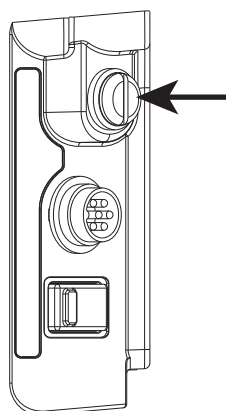
The Thor VM3A has a permanent Lithium battery installed to maintain time, date, and CMOS setup information for a minimum of 90 days. The lithium battery is not user serviceable and should last five years with normal use before it requires replacement.



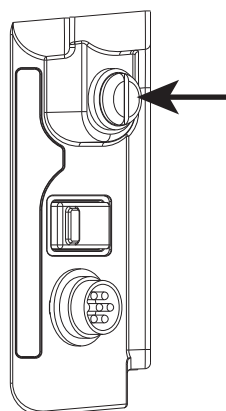
Warning: Improper replacement or repair could damage the battery, cause overheating, risk of explosion, and result in injury. The battery should be disposed of properly. The battery should not be disassembled or crushed. The battery should not be heated above 212°F (100°C) or incinerated. The battery must be recycled or disposed of separately from household waste.

Note: The backup battery should only be changed by authorized service personnel.

Fuse



Standard Dock



Enhanced Dock

The VM3A uses an 8A time delay (slow blow) fuse that is externally accessible and user replaceable. The fuse is located on the back of the dock and is accessed by unscrewing the cap.

Should the fuse need replacement, replace with similar type or rating of the below fuse specs:

- Littelfuse 0215008.MXP,
- Cooper Bussmann BK1/S506-8-R,
- Bel Fuse 5HT 8-R,
- or equivalent.



Caution: Fuse has voltage on it even when power is Off. Always disconnect input power before changing the fuse.

Disconnect the UPS Battery



Caution: The UPS battery must be disconnected before you ship the Thor VM3A, **Replace the UPS Battery**, or **Maintenance - Vehicle Mounted Devices**.

Equipment Required

The following equipment is user-supplied:

- Torque tool capable of measuring inch pounds
- #2 Phillips screwdriver bit

Disconnect Procedure

1. For convenience, the VM3A can be removed from the dock, though it is not necessary. If the VM3A remains in the dock, disconnect the power cable from the dock.
2. Press and hold the **Power** button until the options menu appears. Tap **Power Off**.
3. If the computer was removed from the dock, place the computer face down on a stable surface.
4. Using a #2 Phillips bit loosen the M3 screws and then remove the tethered access panel with the SD socket label.
5. Push the **Shipping Mode Button** to disconnect the UPS. The UPS battery maintains its charge but is disconnected from the power circuitry of the computer.
6. Reattach the access panel, torque the M3 screws to 4-5 inch pounds using a #2 Phillips bit.

7. When the computer is attached to external power, the UPS battery is automatically reconnected.
8. Press the **Power** button to turn on the computer.

Replace the UPS Battery

The UPS battery in the VM3A is field replaceable. Should the UPS battery fail, it can easily be replaced to minimize downtime.

Equipment Required

The following equipment is user-supplied:

- Torque tool capable of measuring inch pounds
- #2 Phillips screwdriver bit

Replacement Procedure



Caution: Before replacing the Thor VM3A front panel, **Disconnect the UPS Battery.**

1. Place the VM3A on a clean, well-lit surface before performing the UPS battery replacement.
2. Press and hold the **Power** button until the options menu appears. Tap **Power Off**.
3. Remove the computer from the dock.
4. **Disconnect the UPS Battery.**

5. Loosen the fourteen (16) captive M3 screws holding the front panel. Use a #2 Phillips bit.
6. Carefully lift the front panel away from the device.
7. Note the orientation of the UPS battery. Lift the UPS battery out of the battery well and place it outside the well. Do not pull on the wires attaching the battery to the computer while lifting the battery.
8. Locate the retaining tab on the wiring connector for the UPS battery. Press on the tab and gently disconnect the UPS battery wiring.
9. Remove the old battery and set it aside.
10. Inspect the battery well to verify the two foam pads are still in place.
11. Align the wiring connector on the new UPS battery with the connector on the computer. Gently press the connector into place until the retaining tab snaps into place.
12. Place the UPS battery into the well. Note the orientation of the battery in the illustration below. The flat surface of the battery points toward the bottom of the VM3A. Make sure all wires are inside the battery well so they are not pinched when the front panel is reinstalled.
13. Position the front panel so the tab on the back of the front panel lines up with the slot on the VM3A. Be sure the two wiring connectors are also aligned.
14. Gently press the front panel into place.
15. Tighten the fourteen (16) captive M3 screws. In the order shown in step 5, use a #2 Phillips bit and torque the screws to 6–7 inch pounds.
16. Reinstall the computer in the dock.
17. When the computer is placed in the powered dock, the UPS battery automatically reconnects. The UPS battery automatically begins charging from the powered dock.
18. Press the **Power** button to turn on the computer.

About the Battery Status

Use the battery icon in the Status bar to see the charge level of your battery. If you want more detailed information on your battery, such as usage time, charge remaining on the battery, or battery health information, open the

Settings app  and tap **Battery**.

Battery Status Icons

Icon	Status
	The battery charge is at 100%.
	The battery charge is at 50%.
	The battery charge is low. You need to charge the battery soon.
	The battery is critically low. You need to connect the computer to a dock.
	The computer is connected to the dock and the battery is charging.
	There is a battery error.

Note: At high ambient temperatures (above 30 degrees Celsius) the device may dim the display to reduce internal temperatures and maintain safe operation of internal components.

Check the Battery Level and Usage

In addition to the Battery status icon and LED, you can monitor the battery status from the Settings app.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **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, select one of the apps or services in the list. You can also access the Battery saver feature from the battery screen.

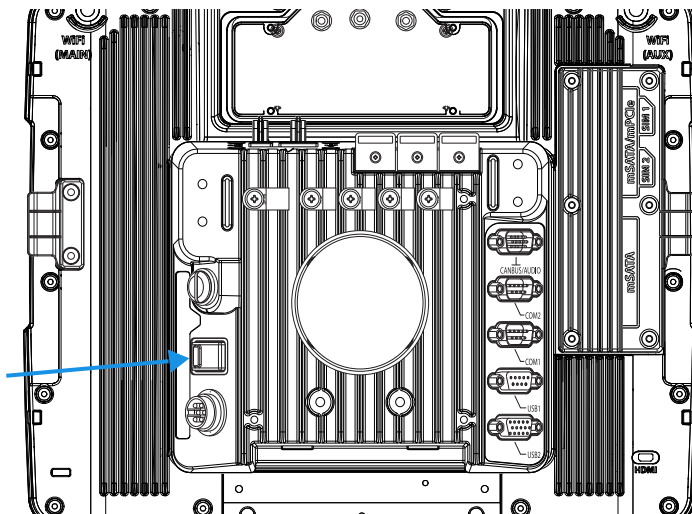
Enable Airplane Mode

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

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings** .
3. In the **Network and Internet** section, tap the toggle button next to **Airplane mode**. An airplane icon appears in the status bar to indicate Airplane mode is turned On.

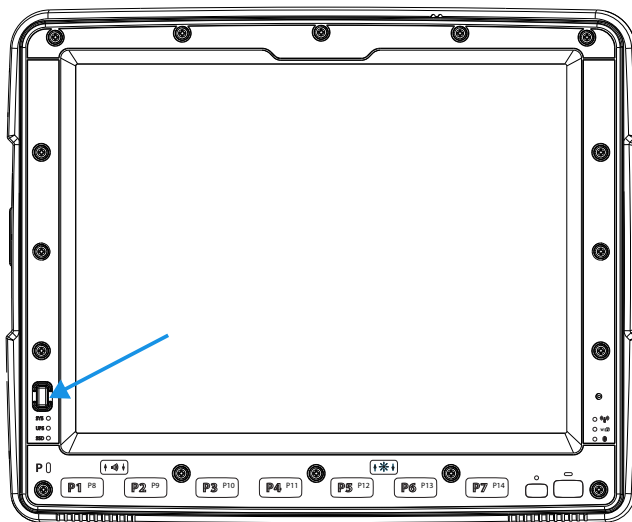
Power On the Computer

The dock has a power switch on the back. The “On” side of this rocker switch has a raised bump to allow the state of the switch to be determined when the switch may not be easily viewed, for example, after the dock is mounted in a vehicle.



After external power has been connected and the computer has been mounted in the dock, press the side of the power switch with the raised bump to pass power from the dock to the computer.

Next locate the **Power** button on the front of the VM3A.



Press the power button to turn the computer On. When the Welcome Screen is displayed or an application begins, the power up sequence is complete.

After initial power On, the computer can be configured to automatically power On. See [Power Management Modes](#) for more information.

Power Cable Cautions



Caution: When routing the power cable:

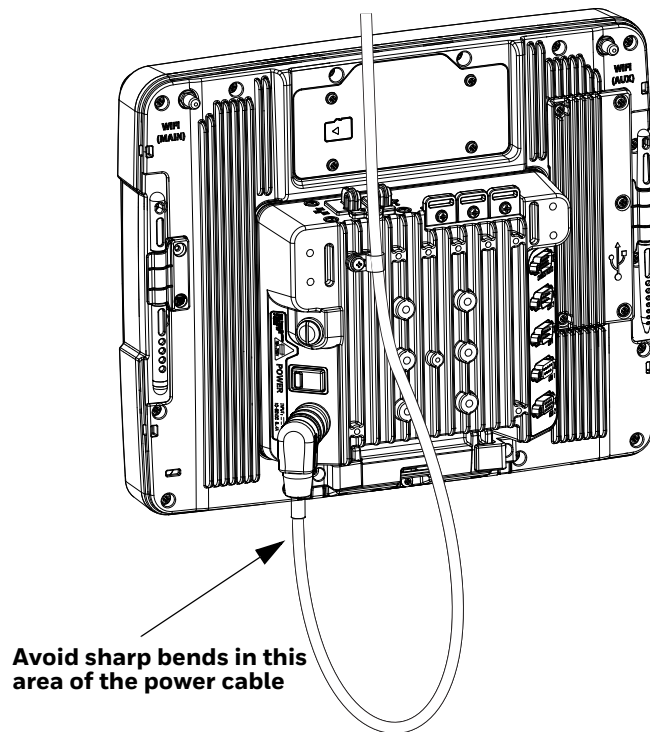
- Route power cable away from the outside of the fork truck.
- Choose a mounting location so that the power cable does not extend outside the vehicle and that provides sufficient clearance so that the power cable (especially the dock connector end) is not pressed against part of the vehicle.
- Use the proper [Strain Relief Cable Clamps](#) to secure cable.
- The power cable is less flexible in low temperature environments. Avoid sharp bends.



Caution: Regularly inspect power cable for damage, especially in low temperature environments. Contact [Technical Assistance](#) for replacement cable options.

Power Cable Routing

Power cable with straight connector



Power Mode

Select the desired power mode behavior.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Honeywell settings** > **Power Mode**.
3. Choose one of the following options:
 - **AC/DC**
 - **Ignition Control**
 - **Auto-On**
 - **UPS**
4. Select Power Schedule for **Sleep** and **Shutdown**.
5. Tap **Apply**.

AC/DC

The computer is turned On and Off manually by the user using the power button on the front of the device.

Ignition Control

The computer is turned On automatically when a signal is received via the Ignition Input wire, which is part of the DC Power Cable.

Auto-On

The computer automatically powers up when power is provided. Auto-On is recommended when the VM3A is powered by AC. The computer will automatically power up after a power outage.

UPS

The computer is turned On or Off manually by the user using the power button on the front of the device. The computer will shutdown automatically after one hour of inactivity.

Power Schedule

Set the duration of time to put the VM3A into Sleep Mode or Shutdown.

Note: *The device will sleep or shutdown after the timeout of inactivity.*

Welcome Screen

The first time you power On the computer, a Welcome screen appears.

During the manual setup process, follow the prompts on the screen as the 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.
- Set up security and privacy options.
- Calibrate the touch screen (not required for PCAP touch screen).

Once you complete the initial setup, the Welcome screen no longer appears when you power on the computer and **Provisioning mode**, see [page 52](#), is automatically turned Off (disabled).

Touch Screen Calibration

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **eGalaxCalibrator**.
3. Choose one of the following options:
 - **Draw Test**
 - **4 Points Calibration**
 - **9 Points Calibration**
 - **25 Points Calibration**
 - **Reset Parameter**
 - **About**
4. Follow the on-screen prompts to touch the targets, hold and then lift the stylus to complete the calibration process.

Note: *Touch screen calibration is not necessary with the optional Projective Capacitance (PCAP) touch screen.*

Unlock the Screen

The screen lock automatically activates every time the computer is turned On or when the computer wakes from sleep mode.

- Swipe up from the lock icon at the bottom of the screen.

The level of security provided depends on the type of lock set (e.g., Swipe, Pattern, PIN, or Password). The default setting (Swipe) provides no protection against unauthorized access to your computer.

Change the Screen Lock to Protect the Computer

After you start using the computer, you should change the screen lock to prevent unauthorized persons from accessing the computer without a password, pin, or pattern to unlock the touch screen once it has been locked.

The recommended setting for the Screen Lock is to enable a Password lock. Use a strong password value (e.g., include numbers, characters, special characters, and mix character case).

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Security & location** > **Screen lock**.
3. Choose one of the following options:
 - **None**
 - **Swipe**
 - **Pattern**
 - **PIN**
 - **Password**
4. Follow the on-screen prompts to complete the setup.
5. Exit the Settings app.

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 also manually set the backlight intensity if you do not want to use the automated adaptive brightness feature.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Display**.
3. Choose one of the following options:
 - To have the computer automatically adjust the brightness for your work environment, turn on the **Adaptive brightness** setting. You can tap **Adaptive brightness** to toggle the feature on or off.
 - To set the brightness level manually, verify the **Adaptive brightness** feature is turned Off, and tap **Brightness Level**. Adjust the slider to set the brightness level.

To set the brightness level manually, verify the Adaptive brightness feature is turned off, and tap **Brightness level**.

- Use the **Blue Key + F7** keypress to increase backlight brightness
- Use the **Blue Key + F8** keypress to decrease backlight brightness.

Screen Blanking

Screen blanking (blackout) can be enabled when the vehicle is in motion. Once screen blanking is enabled, the display is blanked out (or a preselected zoom area is displayed) any time when the vehicle is in motion. If the screen blanking cable is removed, screen blanking is disabled and the display remains On.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Honeywell Settings** > **Screen Blanking**.

Motion Detection Action

Determine what to do when motion is detected:

- **Display Always Active** - The display does not change when motion is detected.
- **Display Black** - The display is blacked out when motion is detected.
- **Display Freeze** - The display is frozen at the time motion is detected.
- **Zoom Zone** - A pre-configured zoom area is displayed when motion is detected.

Motion Timeout Settings

Screen blanking can be configured to provide delays.

- **Delay on Motion** - Configure the delay between motion detection and screen blanking. The default is 2 seconds.
- **Delay on Stop** - Configure the delay between motion stopping and the screen resuming normal behavior. The default is 2 seconds.

Motion Detection Source

Select the Motion Detection Source. The computer supports the screen blanking box to determine motion.

Select the port (COM1 or COM2) the blanking box is attached.

Zoom Zone

Set Zoom Area

The Zoom Area can be selected from the current active desktop display. To set the zoom area:

1. Display the desired content on the VM3A desktop.
2. Open the Screen Blanking interface.
3. Select **Zoom Zone** in Motion Detection Action.

4. Tap the **Set Zoom Area** button.
 5. Select the desired zoom area by tapping on the upper left corner of the desired area and dragging to the lower right corner of the desired area. The selected area is highlighted by a red outline.
- Note:** *Be sure to select the desired area from the upper left corner to the lower right. Selecting the area from a different corner may result in nothing (a black box) being displayed.*
6. If the selected area is not satisfactory, repeat the step above to reselect an area.
 7. To save, tap the check mark in the upper right corner.

Show Zoom Area

Tap the **Show Zoom Area** button to show the currently selected zoom area. The selected area is highlighted in red.

When finished, tap the back button .

Test Zoom Area

Tap the **Test Zoom Area** button.

- The zoom image is displayed.

USB Keyboard/Mouse

A standard USB keyboard or mouse can be attached to the computer using the appropriate adapter cable.

The VM1052CABLE USB Y cable attaches to the dock and provides a type A USB connector.

Front Panel LEDs

The keyboard LEDs are located near the specified key.

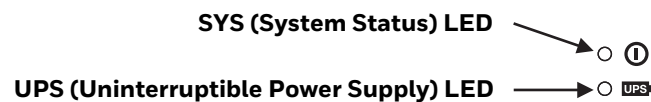
Blue Key LED

LED Behavior	Status
Solid Blue	• Indicates the Blue Key modifier key is active. Blue Key mode is invoked for the next keypress only. • Pressing the Blue Key a second time exits this modifier mode and turns off the LED.
Off	Blue Key mode is not involved.

Orange Key LED

LED Behavior	Status
Solid Red	- Indicates the Orange Key modifier key is active. Orange Key modes are invoked for the next keypress only. - Pressing the Orange key a second time exits this modifier mode and turns off the LED. - Pressing the Orange key followed by the Shift key places the system in Caps Lock mode. - To exit Caps Lock mode, press the Shift key again.
Off	Neither Orange Key or Caps Lock mode is invoked.

System LEDs



SYS (System Status) LED

LED Behavior	System State
Solid White	- On - On, but in Sleep Mode
Blinking White	CPU temperature is less than 0°C. The unit must be moved to an environment warmer than 0°C before it will boot up.
Off	Off

UPS Status LED

The behavior of the UPS LED depends if external power is connected or not.

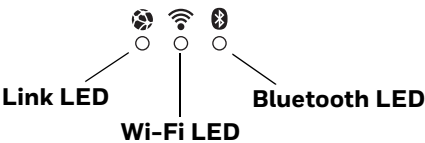
External Power Present

LED Behavior	Status
Solid Green	UPS is more than 50% charged
Solid Amber	UPS is less than 50% charged
Blinking Red	Battery error

External Power Not Present

LED Behavior	Status
Blinking Green	UPS is more than 30% charged
Blinking Amber	UPS is less than 30% charged
Off	Unit is off

Connection LEDs



Link LED

LED Behavior	Status
Solid Green	Indicates a connection to Host. By default, the Link LED is disabled.
Blinking Green	Indicates a ping response has been received within five times of the user specified response time.
Off	Indicates no connection to Host.

Wi-Fi LED

LED Behavior	Status
Solid White	Indicates a connection with an IP address to an Access Point.
Off	Indicates no connection to an Access Point.

Bluetooth LED

LED Behavior	Status
Solid Blue	Bluetooth is paired and connected to a device.
Blinking Blue	Bluetooth is discovering and connecting to Bluetooth devices.
Off	Bluetooth hardware has been turned off.

About the Audio Features

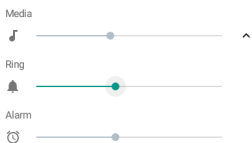
The computer has speakers, a microphone, and several software tools to configure sound volume.

Adjust Speaker Volume

- 1. The speaker volume can be adjusted via the keypad:
 - Use the **Blue Key + P1** keypress to increase speaker volume
 - Use the **Blue Key + P2** keypress to decrease speaker volume
- 2. The volume slider appears.



- 3. Tap the down arrow ▼ to expand the options.



Use the stylus or the Volume buttons to adjust each volume type.

- Use the  slider for notifications.
- Use the  slider for media (e.g., music, videos and other media).
- Use the  slider for alarms.

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**.

Sound Settings

Note: Phone calls are not supported with VM3A.

Setting	Description
Media Volume Alarm Volume Ring Volume	Use the sliders to set the volume for media (e.g., music, videos, and games) and alarms.
Do Not Disturb Preferences	Set app priority allowances, block visual disturbances, and set automatic rules.
Phone Ringtone	Select a default ringtone.
Advanced	
Default notification sound	Select a notification sound.

Setting	Description
Default alarm sound	Select a alarm sound.
Other sounds	
Dial pad sounds	Enable or disable an audio tone when you touch the numbers.
Screen locking sounds	Enable or disable an audio tone when the screen is locked.
Charging sounds	Enable or disable an audio tone when the computer is charging.
Touch sounds	Enable or disable audio sounds when you use the touch screen.
Emergency alerts	Select to configure Emergency alert settings. Turn alerts on or off, specify tone, vibrate or text-to-speech.

About the Defroster

Thor VM3A comes equipped with LCD window defroster to support extended use in freezers as well as transitions into and out of freezer areas.

The defroster can be set to:

- **Automatic**
Turn On automatically to defrost the window based on external temperature changes and timers.
- **Manual**
The user can control the defroster by manually turning it On or Off.

Automatic mode

This is the default mode of operation for the defroster. The defroster activation is controlled by the specifications entered by the user. When the temperature of the computer is below the Defroster enable temperature, the defroster will turn On. The defroster will turn Off after the temperature is reached.

How Automatic Mode Works

Automatic defroster management saves power since the defroster is automatically controlled by the system based on Defroster enable temperature. Automatic mode is enabled by default.

Turn the Defroster On/Off in Automatic Mode

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Defroster**.
3. Tap the **Automatic/Manual** button to switch between the Automatic or Manual mode. The active mode appears on the button. When Automatic mode is enabled, the Defroster Off button is not active.
4. Select the desired Defroster enable temperature.

Manual mode

When enabled, defroster activation is controlled solely by the user. No temperature monitoring and timers are used to control the defroster. The user must manually turn the defroster On or Off.

How Manual Mode Works

Manual mode gives you full control over turning the defroster On or Off. When Manual mode is enabled, automatic mode no longer used to control the defroster's behavior. To turn the defroster on/off, you must tap a button on the Defroster screen in the Settings app. Manual mode is disabled by default.

Turn Manual Mode On/Off

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Defroster**.
3. Tap the **Automatic/Manual** button to switch between the Automatic or Manual mode. The active mode appears on the button. When Manual mode is enabled, the Defroster On/Off button is active.
4. Tap the **Defroster On/Off** button to control the defroster.

Configure the Defroster in the Settings App

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Defroster**.
3. Modify the defroster parameters.
4. Tap **Update** to apply the changes.
5. Tap **OK**.

Defroster Parameters

You can configure the following **Defroster** parameters in the **Settings** app to fit your specific application environment.

Defroster Setting	Description
Defroster	Enable or Disable the Defroster feature and temperature monitoring. Tap the switch button at the top of the screen to toggle the feature On or Off. The default is On.
Defroster enabled temperature	Set the temperature (°C) that the computer must fall to before the system determines cold storage entry and defroster use.
Defroster State	Shows current state of defroster, On or Off .

Defroster Setting	Description
Temperature	Shows detected LCD window temperature
Manual/Automatic	Tap the button to switch between Automatic mode or Manual mode. To learn more about the modes, see How Automatic Mode Works on page 21 and Manual mode on page 22.
Defroster On/Off	Tap the button to switch between On and Off .

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 SD or SDHC memory cards with the computer for maximum performance and durability.

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

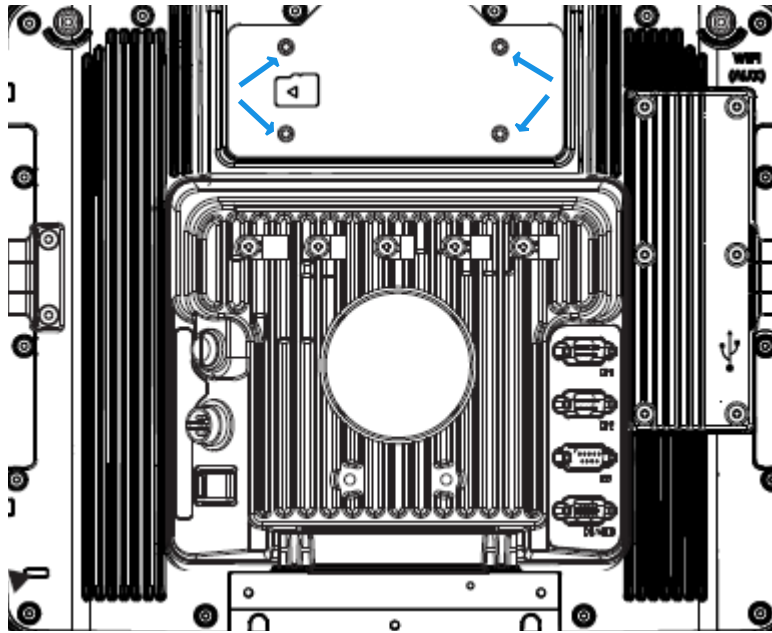
Equipment Required

The following equipment is user-supplied:

- Torque tool capable of measuring inch pounds
- microSD card up to 512 GB
- #2 Phillips screwdriver bit

Installation Procedure

1. For convenience, the computer can be removed from the dock, though it is not necessary. If the computer remains in the dock, disconnect the power cable from the dock.
2. Press and hold the **Power** button until the options menu appears. Tap **Power Off**.
3. If the computer was removed from the dock, place the computer face down on a stable surface.
4. Using a #2 Phillips bit loosen the M3 screws and then remove the access panel with the SD label. This panel is on the top when the computer is face down.



5. Locate the microSD card installation slot.
6. Slide the microSD card into the slot. The label side (front) of the microSD card faces toward the back of the computer.
7. Reattach the access panel, torquing the screws to 4-5 inch pounds.
8. If removed, reinstall the computer in the dock.
9. Press the **Power** button to turn on the computer.

Scanners

VM3A supports external scanners through USB, Serial Port, and Bluetooth.

For more information see:

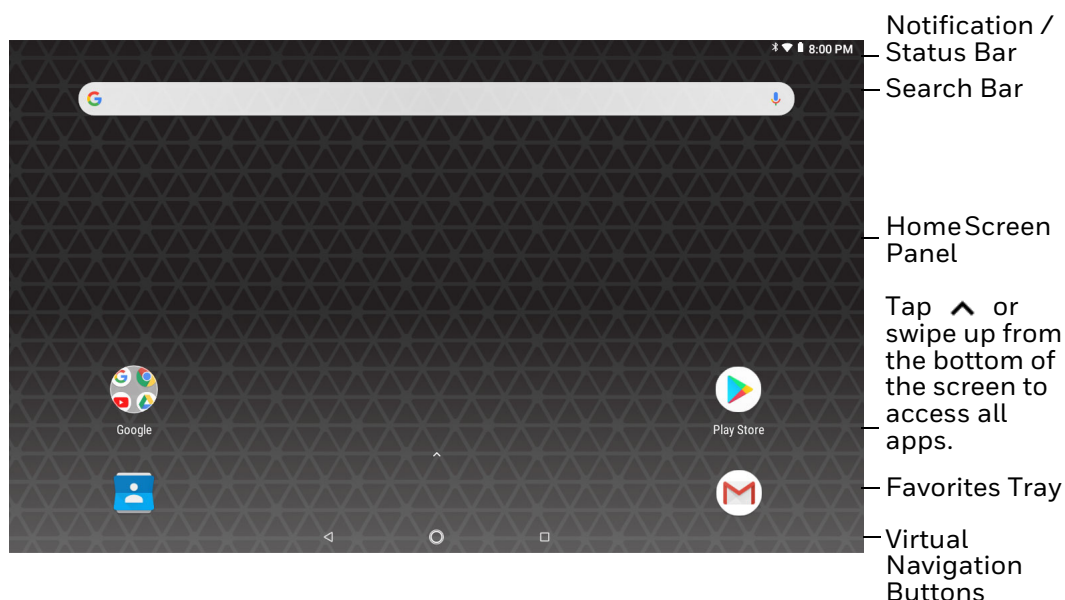
- [Connect a Bluetooth Scanner](#) for connecting Bluetooth Scanners
- [Connect a Tethered Scanner](#) for connecting a scanner through the serial port
- [USB Scanner](#) for connecting a scanner through USB

ABOUT THE USER INTERFACE AND APPLICATIONS

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

About the User Interface

The Android 8 operating system provides a touch-friendly and easy-to-navigate user interface. When you turn On the VM3A, the Home screen is the first screen that appears after language provision and the startup Wizard is complete.



Home Screen Features

Item	Description
Notifications panel / Status bar	Status icons to the left tell you when an app has sent notifications, such as an arriving message. System icons to the right display the current wireless and network connection state and battery level.

Item	Description
Search bar	Search the Internet or the computer using Google™. Touch the microphone icon in the search box to initiate a voice search or command.
Home Screen Panel	You can create more than one custom Home screen panel. Swipe left or right on the Home to switch between your custom panels.
Favorites tray	App icons in the customizable tray are visible on all Home screen panels.

Navigation Buttons

Your computer has virtual buttons on the front panel below the Favorites tray for easy navigation and quick feature access when using the computer.

Navigation Buttons

Button	Description
	Back Return to the previous screen.
	Home Return to the Home screen.
	Recent Apps View and switch between recently used apps.

About Status Bar Icons

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

Status and Notification Icons

Icon	Description	Icon	Description
	Pending alarm and Alarm is set		Airplane mode is turned On.
	New email		Bluetooth is turned On.
	Computer is connected to a PC with a USB cable		SD card is full
	Synchronizing data		Error with sync or sign-in
	Wi-Fi network connected with full signal strength		Wi-Fi network connected but no signal strength
	Computer is connected with Ethernet		

Remap a Button or Key

You can change the default function of the physical buttons and keys.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Honeywell settings** > **Key Remap**.
3. Tap the plus sign (+).
4. Press the button or key you want to remap.
5. Tap **OK**.
6. Tap **Keys** or **Applications** to view the available functions.
7. Select the function you want assigned to the button. The function you selected now appears next to the button or key name.

Restore Default Button Action

To restore the button default action:

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Honeywell settings** > **Key remap**.
3. Tap the clean icon .
4. Choose the remapped button(s) you want restored to the default setting.
 - Tap the check box next to the button.OR
 - Tap **All Select** to choose all the buttons.
5. Tap **Delete**.

View and Manage Notifications

You can view recent events on the computer, manage system notifications, change a setting, or quickly respond to an app notification by opening the notifications panel.

When a notification icon appears in the status bar at the top of the screen:

1. Swipe down from the top of the screen to open the notifications panel.
2. Respond to the notification. You can take one of the following actions:
 - Tap the notification to open the associated app.
 - Tap a quick-reply or action command (e.g., Reply, Archive) if available.
 - Swipe the notification sideways, off the screen to dismiss it. Note that some notifications cannot be dismissed.
 - Slide the notification left or right to reveal the settings icon . Choose between **Show notifications silently**, **Don't silence**, or **More Settings**.

To close the notification panel, swipe up from the bottom of the screen, or tap the Back or Home buttons.

Open Quick Settings

Use the Quick Settings screen to quickly access common settings. Tap an icon to toggle the feature on/off or to open additional settings.

- To open Quick Settings, swipe down twice from the status bar at the top of the screen.
- To close Quick Settings, tap the top of the screen, Back or Home buttons.

Customize the Home Screen

You can add application icons to any Home screen for easier access.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap and hold the app you want to add.
3. Drag and drop the app icon into place.
 - If you want to add another home screen, drag the icon to the right edge of the screen before releasing the icon.
 - If you want to create a folder, drag and drop the icon on top of another icon.

To add widgets or customize the look of the Home Screen:

1. Tap and hold an empty section of the Home screen.
2. Select either **Wallpapers**, **Widgets**, or **Home Settings**.

Customize the Favorites Tray

Modify the Favorites tray to contain the apps you use the most.

1. Tap and hold the app icon you want to replace on the Favorites tray.
2. Drag and drop the app on “**X Remove**” at the top of the screen.
3. Swipe up from the bottom of the screen to access all apps.
4. Tap and hold the icon of the app you want to add.
5. Drag and drop the icon into position on the Favorites tray.

Use Google™ Search

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

1. On the Home screen, tap inside the Google Search box and begin 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 the arrow to add the term to the search field without starting to search.

About Screen Gestures

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

- **Tap**

Tap to select something, toggle a setting on or off, or activate a field for text entry. An on-screen keyboard automatically appears for text entry.

- **Tap and hold**

Tap and hold an item but do not lift the stylus until an action occurs.

- **Drag and drop**

Tap and hold an item, and then slide your stylus across the screen until you reach the target position. Lift your stylus off the screen to drop the item in place.

- **Swipe**

Quickly move your stylus across the screen, without pausing when you first touch. For example, you can swipe a Home screen left or right to view the other Home screens.

- **Slide**

Slowly move your stylus across the screen, without pausing when you first touch. For example, you can slide a notification to the left until the Settings gear is revealed.

- **Double-tap**

Tap quickly twice on a web page, map, or other screen to zoom in. Double-tap again to zoom out.

Set the Time Zone

The computer gets the current date and time from its network connection. If preferred, you can change this behavior and manually set the time zone for your location.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **System** > **Date & time**.
3. Tap **Automatic time zone** to turn off the feature.
4. Tap **Select time zone** and choose the time zone for your location.

Set PCAP Touch Screen Sensitivity Mode

To set the PCAP touch screen sensitivity press the **Blue Key + F6** to toggle between **Normal** Mode (stylus/finger/light glove) and **Thick Glove** Mode.

About Honeywell Applications

Honeywell applications help you troubleshoot and connect your computer to other devices and networks. Some of the applications in this table are located in the Power Tools app. To learn more about Honeywell Power Tools, go to www.honeywellaidc.com to download the *Dolphin Power Tools User Guide*.

Honeywell Applications Available on the Computer

Icon	Application	Description
	AutoInstall Settings	Enable the AutoInstall feature, to automatically install *.zip or *.apk files containing applications saved in the Internal shared storage\honeywell\autotinstall folder and IPSM card\honeywell\autotinstall folder on the computer during the power-up boot or reboot process.

Icon	Application	Description
	Demos	Honeywell Demo apps demonstrate the basic capabilities of the computer and are not intended as functional business solutions. The demos included, demonstrate scanning, signature capture, NFC functionality, and printing via Bluetooth technology. Information on how to create custom applications for your Honeywell computer can be found in the Honeywell Software Development Kit (SDK) for Android, available from the Technical Support Downloads Portal .
	HUPgrader	Use the HUPgrader app to view the current OTA version on the computer, check for updates, or initiate an OTA upgrade from storage.
	Scanner Edge	Use the Scanner Edge app to connect or disconnect a Bluetooth scanner. - View connected devices. - Pair with a Bluetooth Scanner. - Disconnect a Bluetooth Scanner.
Power Tools		
	BattMon	BattMon provides information on the charge status and health of the battery, and provides access to activate battery status notifications and battery charging history logs.
	Config Apps	Config Apps provides the ability to enable, disable, and uninstall applications.
	Configure Autorun	Configure Autorun provides the ability to set applications to automatically run after a reboot.
	Diagnostic Information	Diagnostic Information provides access to system statistics, notifications and version information about the computer.
	EZConfig	EZConfig supports advanced customization and configuration of the hand held computer. EZConfig includes a standard XML editor and configuration bar code scanner feature.
	WiFi Diagnostic	Use application to: - View Wi-Fi radio status information about a connected access point or a list of other available access points in range of the Wi-Fi radio. - Use the Route utility to view packet destination gateway information across the subnets. - Use the IPConfig utility to view IP parameters for the on-board network adapters. - Use the Ping utility to verify communication links or to make sure a specific IP address is working.
	Wireless Tether	Use to enable range tracking and customize out-of-range alerts for Bluetooth devices paired and tethered to your hand held computer.

Applications You Can Download to the Computer

You can download Honeywell applications to extend the capabilities of the computer. You may need to purchase a license to run some applications. To learn more about the applications described in this section and other Honeywell software solutions, go to www.honeywellaidc.com > **Browse Products** > **Software**.

Honeywell Enterprise Browser

Enterprise Browser is a locked-down enterprise Web client application designed for Honeywell computers. It provides a controlled Web application environment that helps enterprises increase productivity and reduce IT management expenses. You can configure Enterprise Browser for your specific application requirements and design custom web applications that run through the Enterprise Browser to provide your users with an easy-to-use yet controlled experience.

If Enterprise Browser is not included on your computer model, you can download a trial version for evaluation. After the evaluation period expires, you need to purchase a license. For more information about Enterprise Browser, visit www.honeywellaidc.com.

Honeywell Launcher

Launcher is a configurable locked-down menu program designed for Honeywell computers that prevents end-users from accessing the start menu and other non-authorized applications. Use Launcher to provide a platform where your computer users are limited to running only company-approved applications and prevent them from initiating unauthorized configuration changes. You can also use Honeywell Launcher together with Honeywell Enterprise Browser to create a single-purpose device configuration.

If Launcher is not included on your computer model, you can download a trial version of the software for evaluation. After the evaluation period expires, you need to purchase a license. For more information about Launcher, visit www.honeywellaidc.com.

Honeywell SmartTE

Honeywell SmartTE is a wireless terminal emulation and centralized management software program. SmartTE is designed to centralize wireless session/client configurations, secure end-to-end wireless data transmission, program screen recognition, track unique devices and usage, and provide visible analytical and application data.

For more information, please contact [Technical Assistance](#) on page ix.

Unlock Developer Options

Developer options only appear in the Settings app if you unlock the feature. If you are a developer working with the computer, you can easily unlock the additional settings to use for testing and debugging applications under development for the computer.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **System** > **About phone**.
3. Tap **Build number** seven times. A message appears informing you that you are now a developer.
4. Open **Settings**  and scroll to the bottom of the list.
5. Tap **Developer options**.

CONFIGURE THE COMPUTER

Use this chapter to learn about the available methods for configuring your computer. You can also use this chapter to learn how to configure network communication 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 available from the all apps menu and the notification panel.

- Swipe up from the bottom of the Home screen to access all apps, and then tap Settings .

OR

- Swipe down from the top of the Home screen, and then select  in the status bar.

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.

Note: *The Settings app varies by computer model and OS version. Your computer may not include all the features outlined in this section.*

When you open the Settings app, suggestions may appear at the top of the list.

- Tap  or  to expand or collapse the suggestion list.

- Tap a suggestion to open the settings screen or app relevant to the suggestion.
- Tap the , and then **Remove** to dismiss the suggestion.

Network & Internet

Setting	Description
Wi-Fi	• Turn Wi-Fi on or off. • Lists available Wi-Fi networks in range and the connection status when the radio is turned on. • Add a network Wi-Fi connection. • Tap Wi-Fi preferences to view saved networks, turn public network notifications on or off, modify WLAN radio sleep settings, view MAC and IP address information.
Data usage	• Manage data usage. • View Wi-Fi data use statistics for the current data use cycle. • Turn network restrictions for metered WLAN networks on or off.
Hotspot & tethering	• Enable or disable USB tethering or Bluetooth tethering for sharing data connections.
Ethernet	• Turn Ethernet connection on and off. • Configure Ethernet connections and set up proxy settings when Ethernet setting is turned on.
VPN	Set the password parameters for a virtual private network (VPN) connection.
Airplane mode	Turn Airplane mode on or off.

Connected devices

Setting	Description
Bluetooth	• Turn the Bluetooth radio on or off. • Lists Bluetooth enabled devices in range when the radio is turned on. • Connect to a Bluetooth Device.
Cast	• Enable wireless display. • Connect to nearby devices.
NFC	• Turn Near Field Communication (NFC) on or off. When the NFC radio is enabled, data exchanges are allowed when the computer touches another NFC enabled device.
Android Beam	• Turn the Android Beam feature on or off. When NFC is enabled, this feature is accessible. You can beam app content to another NFC capable device by holding the devices close together. The app determines what content is transmitted to the other device.
Printing	Configure print options.
USB	Configure USB connection.

Apps & notifications

Setting	Description
Apps	View a list of all apps installed on the computer or system services running.
Notifications	- Tap App notifications to set the notification settings for each app. - Tap On the lock screen to set Show all notification content or Don't show notifications at all. - Turn Allow notification dots and blink light On or Off. - Select Default notification sound.
App permissions	- View and manage app permissions. - Tap , to show or hide system services or to reset app preferences.
Advanced	
Default apps	View and manage app defaults.
Emergency alerts	View and manage emergency notifications.
Special app access	Manage apps with special access.

Battery

Setting	Description
Battery	- View battery usage data and the current battery state. - Access Battery Saver and Battery Optimization features.
Battery Saver	- Turn the Battery Saver on or off. - Set time to turn on automatically.
Battery Percentage	Enable battery percentage in status bar.
Adaptive Brightness	Turn adaptive brightness on or off.
Sleep	Configure sleep mode time frame.
Ambient display	Turn on or off to show new notifications on wake screen.

Display

In the Settings app, select **Display** to access the following settings.

Setting	Description
Brightness level	Set the Brightness level manually if Adaptive brightness feature is turned Off.
Night light	Activate the Night light feature to adjust the screen tint to a light amber for easier viewing and reading in dim light or for the hours you use the device before going to sleep. Set the feature to stay on or define a schedule to automatically turn the feature On/Off. You can manually adjust the intensity of the amber hue once the feature is activated.
Adaptive brightness	Set how the screen in sleep mode responds when new notifications are received (e.g., wake or do not wake).

Setting	Description
Wallpaper	Set the wallpaper.
Advanced	
Sleep	Set the inactivity time limit before the unit automatically turns off the screen to save battery power (seconds or minutes).
Keypad Backlight	Set the inactivity time limit before the keypad backlight automatically turns off (seconds or minutes).
Font size	Set the default on-screen text size.
Screen Saver	Set the screen saver.
Ambient display	Set how the screen in sleep mode responds when new notifications are received (e.g., wake or do not wake).

Sound

In the Settings app, select **Sound** to modify the audio and sound settings. To learn more, see [Audio Settings](#) on page 20.

Storage

In the Settings app, select Storage to view statistics on available and used storage space on the device and on any portable storage cards installed.

Security & Location

In the Settings app, select **Security & Location** view latest Security scan results, security updates and phone encryption status. Access additional settings related to device security.

Setting	Description
Screen Lock	Activate and configure a screen lock (i.e., None, Swipe, Pattern, Pin, Password).
Lock screen preferences	Configure the following lock screen parameters: - Select notifications you want shown on the lock screen. - Enable or disable adding users from the lock screen. - Customize the lock screen message.
Smart Lock	Define safe conditions or locations where your phone will stay unlocked (e.g. On-body, Trusted places, Trusted devices, Voice Match).
Location	- Turn location services (Google and GPS satellite data) On or Off. - View and manage app-level location service permissions. - Set location mode accuracy and view location request history. - Turn Wi-Fi and/or Bluetooth scanning On or Off. When enabled system apps and services are allowed to detect Wi-Fi networks or Bluetooth devices at any time to improve location services.
Show passwords	Enable or disable showing characters briefly as you type.
Device admin apps	Manage administrator privileges.
Encryption & credentials	View encryption status and manage trusted credentials (e.g., view, install, clear, and edit).

Setting	Description
Trusted agents	View and enable/disable trusted agent apps such as, Smart Lock by Google on the device. Trusted agents bypass security based on set parameters.
Screen pinning	Enable or disable the screen pinning feature. When enabled you can pin the device screen to a recently used app where it stays until you unpin the app via the security method chosen.
Apps with usage access	View and manage apps with usage permission.

Users & Accounts

In the Settings app, select **Users & accounts** to access the following settings.

Setting	Description
Users	- Modify the owner profile name and add profiles for other people who use the computer. - Activate a different user profile.
Add account	Select to add and manage Corporate or Email account on the computer.
Emergency Information	Enter emergency information for the active user profile. The information you enter may be used by first responders in an emergency. Anyone can read the information from the emergency dialer without unlocking the computer.
Automatically sync data	Turn auto-sync On or Off for accounts. Turning the feature On allows apps to refresh data automatically.
Add users from lock screen	Enable or disable allowing users to be added from the lock screen.

Honeywell Settings

Setting	Description
Digital Scan Button	Enable and configure the optional digital scan button. To learn more, see About the Optional Digital Scan Button on page 37.
Honeywell Power	Turn unattended mode on or off.
HXLogger	The HXLogger is an advanced diagnostic log service that provides a basic log service, plug-ins for modified log services, and a log manager. - Tap HXLogger to turn the basic log service on or off. When enabled the service records app and system diagnostic troubleshooting information into four basic log files: main log file, radio log, event log, and kernel log. - Tap Plugin to view and enable additional log services and custom plug-ins. - Tap Manager, to change the default log path, delete logs or upload logs for technical support troubleshooting.
I/O Ports	- Turn USB Powered in Sleep On/Off. - Turn 5V on COM1 On/Off. - Turn 5V on COM2 On/Off. - Set COM1 settings. - Set COM2 settings.

Setting	Description
Key Remap	Change (remap) a button or key function. To learn more, see Remap a Button or Key on page 29.
Link LED Indicator	Set Link LED Indicator settings: IP address, ping rate, failed ping count threshold, degraded link threshold, and failed link threshold.
Misc	Turn on or off miscellaneous features. - Permanent Caps Lock Enable - Touch Screen Disable - Enable Keypad Backlight
Power Mode	- Set Power Mode to AC/DC, Auto-On, Ignition Control, or UPS. - Set Power Schedule for Switch state to Sleep and Switch state to Shutdown.
Provisioning Mode	Enable or disable unrestricted installation of applications, certificates, configuration files, and licenses. Provisioning mode is turned off by default. To learn more About Provisioning Mode , see page 70.
Scanning	Enable or disable serial scanner COM1 and COM2. Configure serial scanner COM1 and COM2
Screen Blanking	Configure screen blanking settings. To learn more, see page 16 .
Staging Hub Agent	Use this agent and settings to connect the computer to the Honeywell Staging Hub Foundation software platform; a centralized software platform IT integrators and administrators can use as a solution for managing, monitoring and deploying Honeywell devices in a connected workspace environment.
Web Applications	Enables access for the Honeywell Mobility SDK for Web apps and lets you set a port.

Google

In the Settings app, select **Google** to Set up and manage your Google accounts and services.

System

Setting	Description
Language & input	- Set the active language. - Configure auto-typing features such as capitalization, punctuation, spell check, and the personal dictionary. - Set and manage Keyboard and input methods (Virtual and Physical). - Set text-to-speech output. - Adjusts the pointer speed.
Date & time	Configure all date and time settings
Backup	Perform a Factory Reset. To learn more, see About a Factory Data Reset on page 76.
Developer options	Enable developer-specific options such as USB debugging and SD card protection. This option only appears under System settings if you enable the feature. To learn more, see Unlock Developer Options on page 35.

Setting	Description
Reset options	Select from the following reset options: - Reset Wi-Fi, Mobile & Bluetooth Use to reset all network settings, including Wi-Fi, Mobile data and Bluetooth. - Reset app preferences. Use reset app preference back to defaults. This apps you disabled, notification changes, default app actions set, background data restrictions for apps and permission restrictions. - Enterprise data reset. To learn more, see About an Enterprise Data Reset on page 119. - Erase all data (factory reset). To learn more, see About a Factory Data Reset on page 120.
About phone	View device-specific information including the model number, operating system version, software patch version, radio versions, build number and legal information.

About Network Communications

You can easily add the computer to your wireless or wired data collection network. Connect the VM3A to your computer using:

- 802.11 a/b/g/n/ac radio communications.
- Ethernet communications.
- Bluetooth communications.
- USB and serial communications.

Connect to a Wi-Fi Network

The computer contains an 802.11 a/b/g/n/ac 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.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Network & Internet** > **Wi-Fi**.
3. Tap **Off**  to toggle Wi-Fi radio **On** . A list of discovered networks appears.
4. On the list, tap a network name to initiate a connection.

To add a network if it does not appear on the list:

- a. Navigate to the end of the discovered network list, and then tap **Add network**.
- b. Type the Wi-Fi network name (SSID).
- c. Choose a security protocol and add any required information.
- d. Tap **Save**.

5. Enter any required information if the network is secured (e.g., password, key or certificate name).
6. Tap **Connect**.

Once you connect to a saved Wi-Fi network:

- Tap the network name on the list to view details (e.g., status, signal strength, speed, frequency, security type). Select **Cancel** to close details screen.
- The computer automatically connects to the same network when the network is in range and the WLAN radio is turned on.
- To remove a network from your saved list, tap and hold the network name and select **Forget network**. You can do this for networks you no longer use.
- To modify a network from your saved list, tap and hold the network name and select **Modify network**. You can do this if you changed your network password.
- To view a list of only your saved networks and select **Saved networks**.

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. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Network & Internet** > **Wi-Fi**. The list of available Wi-Fi networks appears.
3. Tap and hold the name of a connected network, and then tap **Modify network**.
4. Tap **Advanced options**.
5. Under Proxy, tap **None** to open menu, and then select **Manual**.
6. Enter the proxy settings for the network.
7. Tap **Save**.

Disable Wi-Fi Notifications and Set WLAN Radio Sleep Parameter

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. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Network & Internet**. Verify the WLAN radio is turned on.
3. Tap **Wi-Fi**.
4. Tap **Wi-Fi Preferences**.
5. Tap the **Open Network notification** to toggle the setting on or off.

Connect to an Ethernet Network

To connect the computer to an Ethernet network.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Network & Internet** > **Ethernet**. The Ethernet setting is turned **On** by default.
3. Tap **Ethernet**.

The Ethernet connection screen shows the current Ethernet connection. By default, the computer assumes a DHCP connection, and that your network has assigned an IP address automatically.

4. (Optional) To assign a static IP address.
 - a. Tap **DHCP** and then select **Static** from the list.
 - b. Enter the required network information, and then tap **Apply**.
5. Tap **Save**.

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 add or connect to a VPN network, you must enable a screen lock method.

Add a VPN

Before you can connect to a VPN, you must create a VPN profile.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Network & Internet** > **VPN**.
3. Tap **+** to add a VPN new profile.
4. Enter the required information for the VPN connection. If needed, swipe up on the screen to access all the required information fields.
5. Tap **Save**. The VPN name appears in the VPN list.

Connect to a VPN

Once a VPN profile is created, you can connect to the VPN at any time.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Network & Internet** > **VPN**.
3. Tap the name of the VPN in the list.
4. Enter any necessary credentials when prompted.
5. Tap **Connect**.

A  appears in the status bar and a notification is received. To disconnect from the VPN, tap the notification.

Edit VPN Information

Editing an existing VPN profile be done from the VPN screen.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Network & Internet** > **VPN**.
3. Tap and hold the name of the VPN in the list.
4. Tap  to the right of the VPN profile you want to edit.
5. Edit the VPN settings as necessary.
6. When you are done, tap **Save**.

About 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

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.

About 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 other extension, you must change the extension to .crt or .cer to install 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 browsers 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 the computer.
2. Swipe up from the bottom of the Home screen to access all apps.
3. Tap **Settings**  > **Security & location** > **Encryption & credentials**.
4. Tap **Install from storage**. Navigate to the location where you saved the certificate or key store.
5. Tap the certificate or key store to install it. If prompted, enter the key store password and tap **OK**.
6. Select **VPN and apps** or **Wi-Fi**.
7. Enter a name for the certificate and tap **OK**.

Disable or Remove Certificates

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

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Security & location** > **Encryption & credentials** > **Trusted credentials**.

The trusted credentials screen has two tabs:

- **System** shows Certificate Authorities (CA) certificates permanently installed on the computer. They can only be disabled.
 - **User** shows CA certificates you have installed yourself. You can remove these certificates.
3. Tap the name of the certificate to you want to disable or remove. The Security certificate screen appears.

4. Scroll to the bottom of the screen and tap **Disable** (for System certificates) or **Remove** (for User certificates).
5. Tap **OK**.

Note: You can enable a disabled System certificate but if you remove a User certificate, you must install it again to enable it.

About Bluetooth Communications

Your computer is equipped to communicate with other devices using Bluetooth technology. The Bluetooth radio must be turned on to discover, pair and connect to other Bluetooth devices. System bar icons indicate Bluetooth radio status.

Connect a Bluetooth Device

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

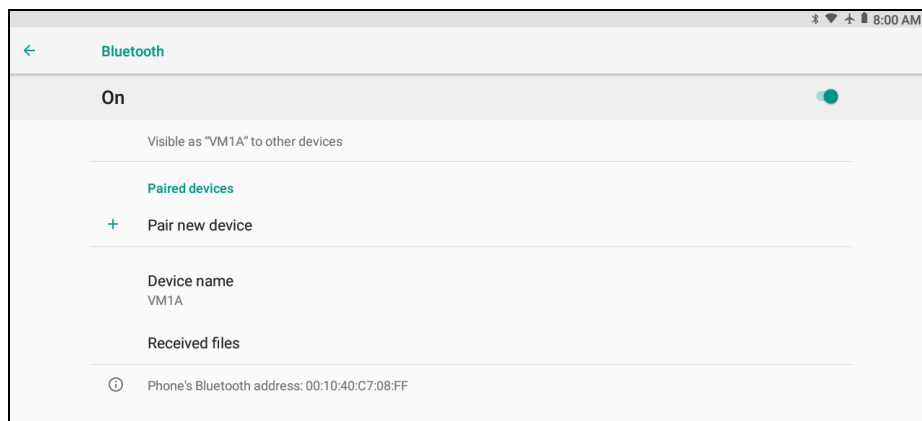
1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Connected devices** > **Bluetooth**.
3. If necessary, tap **Off**  to toggle the Bluetooth radio **On** .
4. Tap **Pair New Device**.
5. Select a device on the list to initiate a pairing request.
6. When the pairing request message appears:

- Verify the pairing PIN is the same on both device, and then tap **Pair**.

OR

- If the pairing request requires a PIN, enter the **PIN**, and then tap **Pair**.

When the device is successfully paired with the computer, the device name appears under Paired devices.



7. (Optional) Once paired to a device, you can connect manually to the device. Tap the device under Paired devices. The word “Connected” appears under the paired device name.
The status icon changes from  to .
- To disconnect a paired device, tap the name of the paired device and then tap **OK** when the “Disconnect?” screen appears.

Rename the Computer and View File History

You can change the name of the computer to make it easier to identify when pairing with other Bluetooth enabled devices and view statistics about received files.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Connected Devices** > **Bluetooth**.
3. Tap on **Device name**. Type new name and then tap **Rename**.

Rename or Unpair a Paired Device

You can rename a paired device to make it easier to identify on the list or unpair the device to remove it from the paired list.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Connected devices** > **Bluetooth**.
3. Tap  next to the paired device.
4. Take one of the following actions:
 - To rename the device, type the new name, and then tap **OK**.
 - To allow **Internet connection sharing** or **Contact Sharing**, tap the check box next to the setting.
 - To unpair the device, tap **Forget**.

About the Scanner Edge App

Your mobile computer is equipped to communicate with scanners using Bluetooth technology through the Scanner Edge app. The Bluetooth radio must be turned on. System bar icons indicate Bluetooth radio status.

To turn on the Bluetooth radio:

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Connected devices** > **Bluetooth**.
3. If necessary, tap **Off**  to toggle the Bluetooth radio **On** .

Connect a Bluetooth Scanner

To connect to a Bluetooth scanner, the Bluetooth radio must be turned on and then scan a pairing bar code with the Bluetooth scanner.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Scanner Edge** .
3. Tap the menu icon  and then tap **Pair BT Scanner**.
4. For Honeywell branded scanners tap **Honeywell** or for Intermec branded scanners tap **Intermec**.
5. Scan the **Scan to connect barcode** displayed on screen.
6. When the scanner is successfully paired with the computer, the scanner name appears under Connected Device.

Unpair a Paired Scanner

You can unpair the scanner to remove it from the Connected Device list.

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Scanner Edge** .
3. Tap the menu icon  and then tap **Disconnect BT Scanner**.
4. Tap **Honeywell** or **Intermec**.
5. Scan the **Scan to disconnect barcode** displayed on screen.

USB Troubleshooting

- If you have a problem with your workstation computer recognizing the USB device, try downloading and installing the Honeywell-aidc-usb-driver. The driver is part of the Honeywell_Mobility SDK_Android software.zip file. To learn where to get the software, see [Developer Information](#) on page 69.
- Check to make sure you have enabled the USB for file transfer. To learn more, see [Configure USB Connection and Transfer Files](#) on page 18.

How to Share Your Data Connection

You can share the data connection through USB tethering or Bluetooth tethering.

Share the Data Connection Through USB or Bluetooth

You can share your data connection with another device through tethering. After you connect the computer to another device through a USB connection, you can share the computer's data connection through USB tethering. Or, if the device is Bluetooth-capable, you can configure the computer to share the data connection with the device through Bluetooth tethering.

1. Connect the computer to another device through a USB connection.
2. Swipe up from the bottom of the Home screen to access all apps.
3. Tap **Settings**  > **Network & Internet** > **Hotspot & tethering**
4. Tap the type of tether to initiate:
 - Tap **USB tethering** to enable the connection.
 - Tap **Bluetooth tethering** to enable the connection.
The device is now sharing the computer data connection.
5. To stop sharing the connection, disconnect the USB cable, or tap **USB tethering** or **Bluetooth tethering** again to turn off the feature.

About Near Field Communication (NFC)

NFC technology provides the ability for short-range, wireless data transfer between the VM3A and NFC tags or other NFC enabled devices placed in close proximity to the back of the computer. All VM3A computers 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 (e.g., 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 can download and install apps for card emulation mode from the Google Play™ store. Some examples include digital wallets (e-wallets) offered by your bank or credit card company and Google Pay™. The app you install determines the type of emulation mode used: Card Emulation with a Secure Element or Host-based Card Emulation. Secure element use is common for financial transactions that require a high level of security in order to provide a secure memory and execution environment

for running custom smart card applets and storing your personal information (e.g., account information and credentials).

Note: When using a Universal Integrated Circuit (UICC) card for NFC Secure Element NFC link encryption, install the card in SIM slot 1.

Developer and Device Management Information

To download the Honeywell Mobility SDK for Android, Enterprise Provisioner, and Staging Hub:

1. Go to www.honeywellaidc.com.
2. Select **Get Resources > Software**.
3. Click on the *Technical Support Downloads Portal* link, <https://hsmftp.honeywell.com>.
4. Create an account if you have not already created one. You must login to download the software.
5. Install the *Honeywell Download Manager* tool on your workstation (e.g., laptop or desktop computer) prior to trying to download any files.
6. Navigate to the software:
 - *Honeywell Mobility SDK for Android*
Click on **Software > Software and Tools > Developer Library > SDKs for Android**.
 - *Enterprise Provisioner and Staging Hub*
Click on **Software > Software and Tools > Device Management > Staging Hub Foundation > Current**.
7. Select **Download** next to the software zip file.

For more information about Honeywell Mobility SDK for Android, Enterprise Provisioner, and Staging Hub, visit www.honeywellaidc.com.

About Provisioning Mode

Once you complete the out-of-box initial setup process, Provisioning mode is automatically turned off to improve device security against unwanted modifications to the system.

When Provisioning mode is turned off (disabled):

- Configuration bar codes do not scan and process.
- \honeywell\autoinstall folders are inaccessible.

Note: To learn more about network and security for Honeywell computers with Android operating systems, go to www.honeywellaidc.com.

Enable or Disable Provisioning Mode

1. Swipe up from the bottom of the Home screen to access all apps.
2. Tap **Settings**  > **Honeywell Settings** > **Provisioning mode**.
3. Tap the button to toggle the provisioning On or Off.

