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Honeywell

IH45

UHF RFID Reader

User Guide

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Customer Support

Technical Assistance

Go to honeywell.com/PSStechnicalsupport to search our knowledge base for a solution or to log into the Technical Support portal.

Product Service and Repair

Honeywell International Inc. provides service for all of its products through service centers throughout the world. Go to sps.honeywell.com and select Support to find a service center near you or to get a Return Material Authorization number (RMA #) before returning a product.

Limited Warranty

For warranty information, go to sps.honeywell.com and select **Support > Warranties**.

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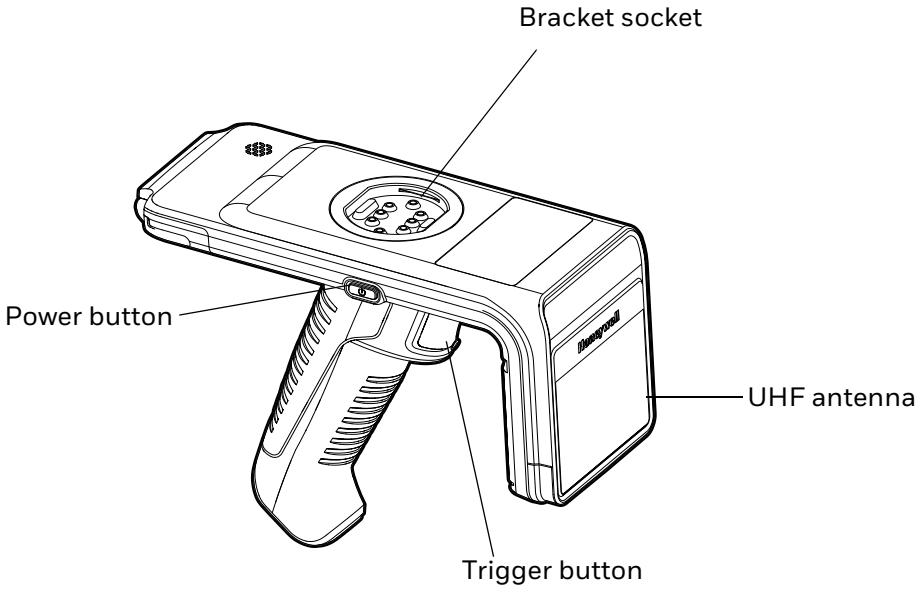
CHAPTER 1

INTRODUCTION

The IH45 UHF RFID Reader provides Ultra High Frequency (UHF) Radio Frequency Identification (RFID) connected to a mobile terminal. The unit can read and write to bar code, QR code and UHF RFID tags.

Note: *RFID reader may differ slightly from illustrations depending on the model.*

IH45 Features



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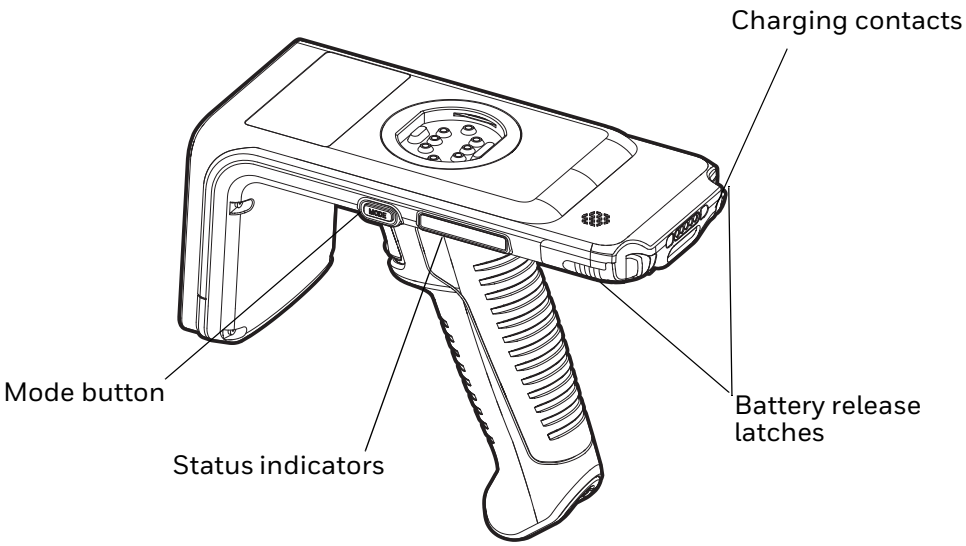

Battery Installation

Caution: Before you attempt to use, charge or replace the battery in the device, carefully read all labels, markings and product documentation provided in the box or online at sps.honeywell.com. To learn more about Battery Maintenance for Portable Devices, go to honeywell.com/PSS-BatteryMaintenance.

Avant d'essayer d'utiliser, de charger ou de remplacer la batterie de l'appareil, lisez attentivement toutes les étiquettes, marquages et documentation du produit fournis dans la boîte ou en ligne à sps.honeywell.com. Pour en savoir plus sur l'Entretien de Batteries pour Appareils Portables, consultez-le honeywell.com/PSS-BatteryMaintenance.

Install the battery before using the reader for the first time. When installing or removing the battery, hold the unit upside down in the palm of your hand.

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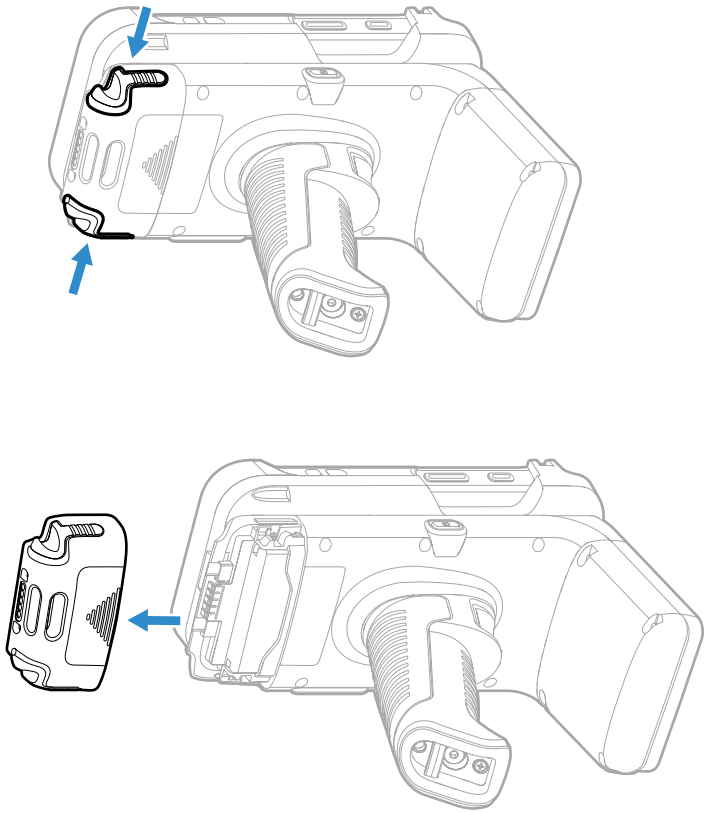
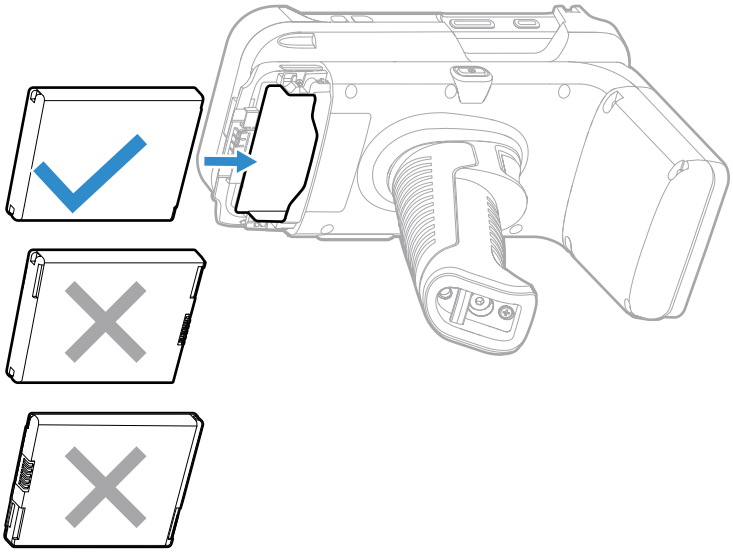
1. To access the battery compartment, squeeze the battery cover latches and slide the door out.



2. Insert the battery into the battery compartment.



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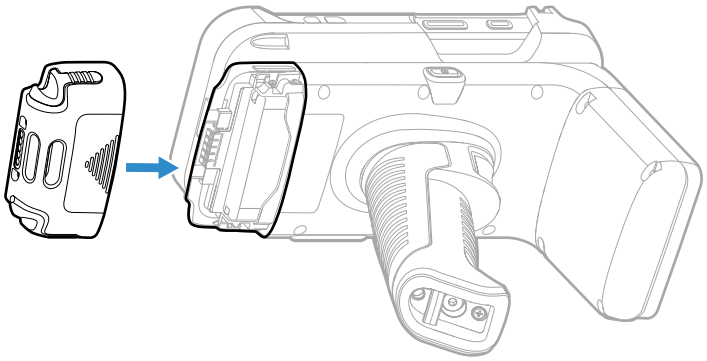
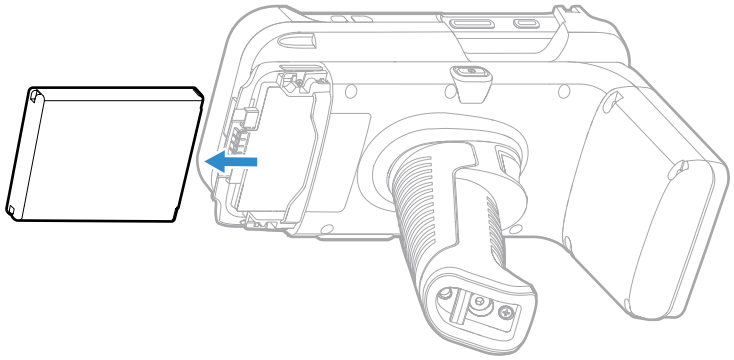
3. Slide the battery cover into the unit.



To uninstall the battery:

1. Squeeze the battery cover latches then slide the battery cover out.
2. Slide the battery out of the unit.



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Charging

Before using the reader for the first time, ensure the battery is fully charged.

1. Attach the battery cover. Make sure that the cover clicks into place.
2. Attach the handle. Make sure that the handle clicks into place.

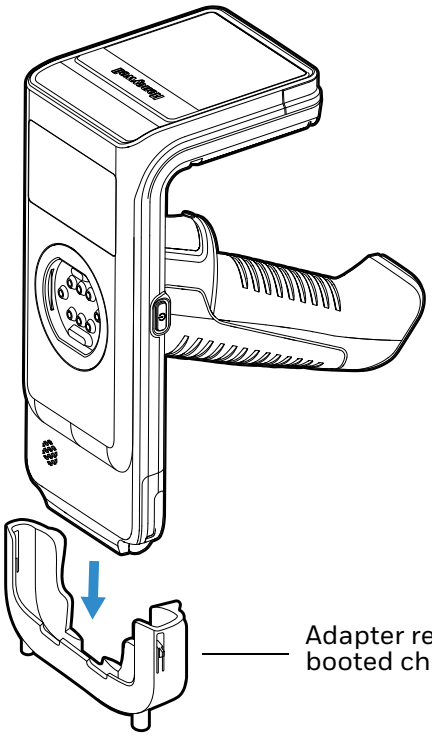
Docking Station Charge

The IH45 RFID Reader is compatible with all existing CT40 charge bases and universal dock chargers. To charge the IH45 RFID Reader with a booted charge base, place a non-booted device adapter sleeve into the charging cup.

The RFID Reader can be charged alone or with a mobile device attached. If a mobile computer is attached to the IH45 when it is placed in the charger, both devices will charge simultaneously.

Note: *When charging, make sure the charging indicator is always on.*

1. If the charge base has a booted cup, insert the device adapter sleeve into the charge dock.
2. Place the RFID Reader into the cup.



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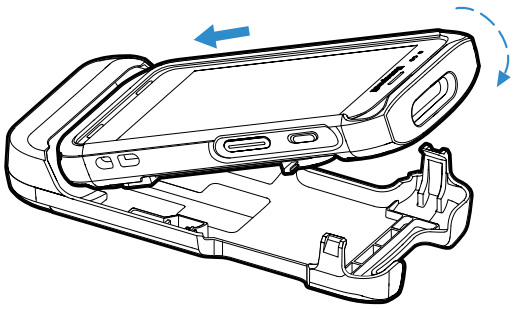
Installing/Removing Device Bracket and Attaching Device

Before installing the device, ensure that the charge base plug and charge base socket on the reader are clean and free from dirt or debris.

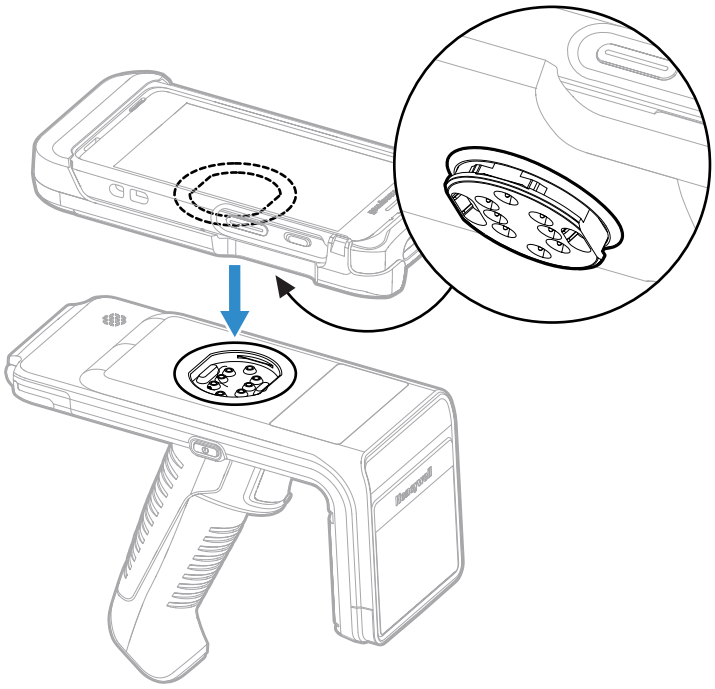
Note: *Bracket may differ slightly from illustration depending on the model.*

Install Device

1. Insert the mobile device into the bracket and press it down.



2. Align the bracket with the socket, ensuring that it is parallel, and press the two parts together firmly until they click into place.



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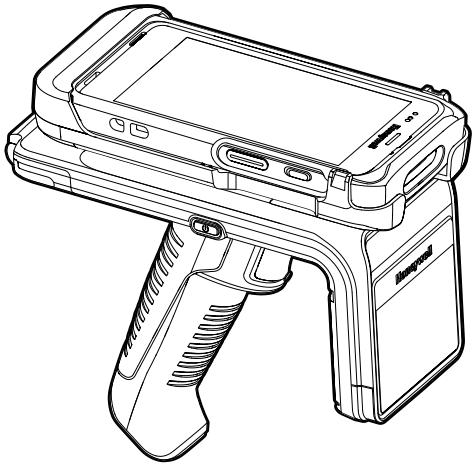
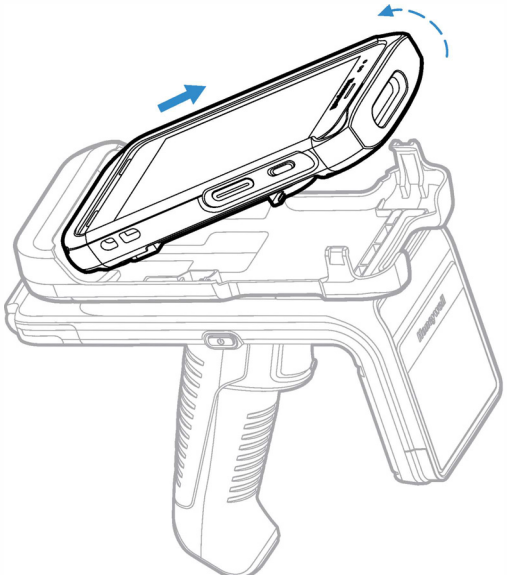
Assembled unit:



Remove the Device

1. Hold the unit by the handle.
2. Pull the mobile computer upwards out of the bracket.



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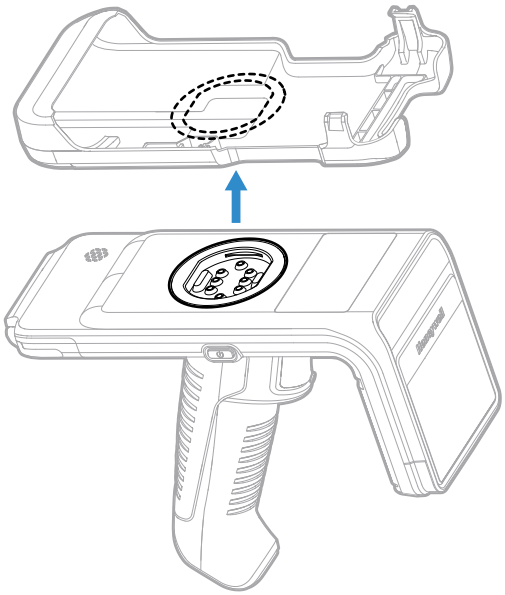
3. To remove the bracket, hold the handle with one hand and lift the bracket up from the RFID Reader with the other hand



Reading RFID Tags

RFID tags can be read when they are in range. The range (typically 0.2ft-20ft) at which a tag can be read depends on the tag type and size and the number of tags in the field.

1. Turn on power to the reader. It beeps one time.
2. Power on the mobile device and launch the HONRFID app. See Connect on page 12 for instructions on connecting the mobile device to the RFID reader.

Note: *Switch on the Bluetooth function and Location (Settings > Location> Use Location) on the mobile device before connecting, or the connection will fail.*

3. Press the MODE button and release within 3 seconds to check the IH45's operation mode.
   - If the RFID LED lights up, the IH45 is in RFID mode.
   - If the 1D/2D LED lights up, the IH45 is in Barcode mode.
   - Press and hold the MODE button for at least 3 seconds to switch to RFID mode.
4. Press the trigger button to read tags.

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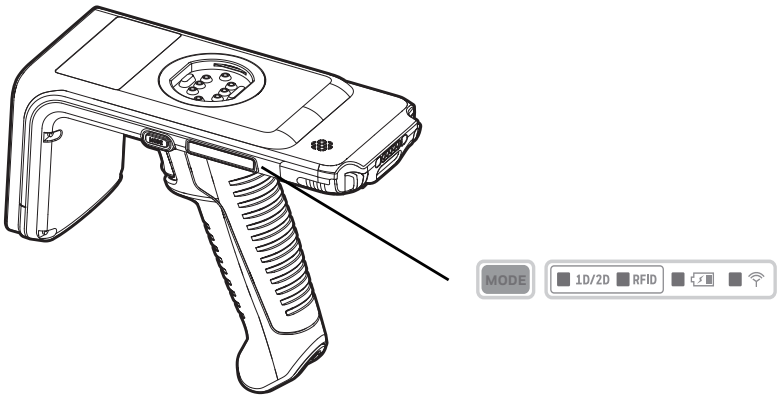
MODE Button and Status Indicators

This section describes the mode and status indicators on the IH45 RFID Reader.



Indicator	Definition
MODE 1D/2D RFID	Press the MODE button to display the current mode indicator. Release the button within 3 seconds to turn the mode light off. Press and hold the MODE button for at least 3 seconds to switch between 1D/2D and RFID mode; the current mode light is on. Release the button: the current mode light is off.
	Solid amber: Charging Solid green: Fully charged Red flash/Green and amber flash alternately: Charge error Solid red: Battery low warning (<20% capacity remaining)
	Blue slow flash: Bluetooth disconnected (two beeps when disconnected from PDA) Solid blue: Bluetooth connected (one beep when connected successfully)

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CHAPTER 2

HONRFID MOBILE APPLICATION FOR ANDROID

Overview

This chapter describes the HonRFID Mobile Application for Android that can be used with the IH45 UHF RFID Reader.

This application runs on Android mobile devices and demonstrates IH45 functions and tag operation. It allows the user to navigate to all screens whether or not the device is connected to the IH45 reader and when the inventory/locate operation is in progress.

Note: *The content of this chapter is only based on the demo app demonstrating the basic RFID function of IH45. Customers should eventually integrate the RFID SDK into the source code of their own app to fully implement the function. To get the demo app and SDK files, ask local sales staff for help.*

Using the HonRFID Mobile Application for Android

To use this application for RFID operations:

1. Ensure the HonRFID Mobile Application for Android is installed on the Android mobile device.
2. Ensure the IH45 is in RFID mode.
3. Launch the HonRFID Mobile Application for Android on the mobile device.

Download the App

To download the HonRFID Mobile Application for Android:

1. Go to the *Technical Support Downloads Portal* at https://hsmftp.honeywell.com.
2. Create an account if you have not already created one. You must login to download the software.

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3. Install the *Honeywell Download Manager* tool on your workstation (e.g., laptop or desktop computer) prior to trying to download any files.
4. To navigate to the software, click on **Software** > **RFID** > **RFID Handheld Readers** > **IH40** > **Software**.

Note: *This is available on the FTP site under the IH25 RFID Reader at this path but it is not under IH40. Verify for IH45.*

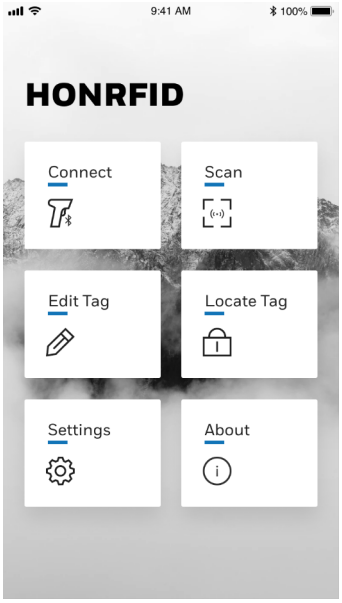
5. Select **Download** next to the software zip file.

Basic Operation

The following section explains how to use the HonRFID application.

Home Screen

To access the HonRFID Mobile Application for Android, touch the App icon on the mobile device to display the Home screen.



Connect

This section describes the methods available to connect a mobile device to the RFID reader.

Note: *Before connecting, switch on the Bluetooth function on the mobile device.*

Touch the Connect icon on the Home Screen to go to the Connect screen.

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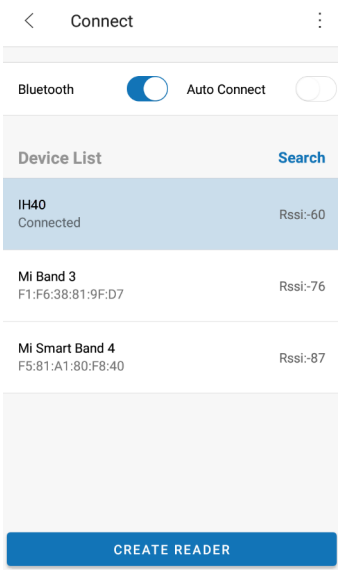

Auto Connect

1. Tap Auto Connect to switch on this function.
2. Tap the Search button. The mobile device will search for an available Bluetooth device and connect to it automatically. It beeps one time when successfully connected.
3. Tap **CREATE READER** at the bottom of the screen to pair with the IH45 RFID Reader and go to the Scan screen.

Manually Connect

1. Tap Auto Connect to switch it off.
2. Tap the Search button and wait until the available Bluetooth devices are displayed in the list.
3. Select IH45 to connect. The device beeps one time when successfully connected.
4. Tap **CREATE READER** at the bottom of the screen to pair with IH45 and go to the Scan screen.

QR Code Connect

Tap ⋮ on the right top corner of the Connect screen and select the QR reading option to scan the QR code on the IH45 RFID Reader to pair with the device.

Note: *The QR code reading option is only supported by Honeywell mobile devices.*

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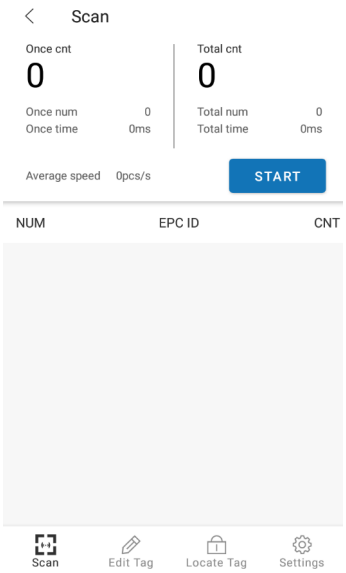
Scan

Note: *The mobile device must be successfully connected with an IH45 RFID Reader before scanning.*

1. Touch the Scan icon on the Home screen to go to the Scan screen.



2. Tap **START** to start scanning tags that are in range.
3. Tap **STOP** to stop scanning. The scanned tags information is displayed in the list.

Note: *You can also press and hold the trigger button on the IH45 to start scanning tags and release the trigger button to stop scanning in RFID mode.*

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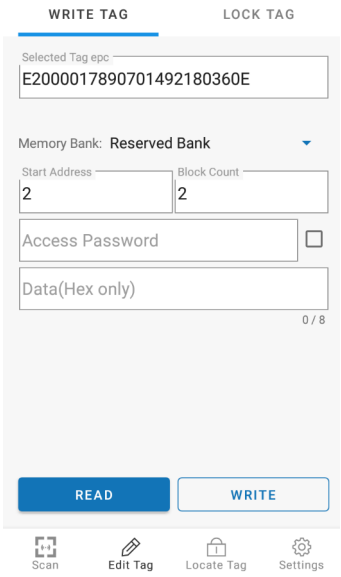
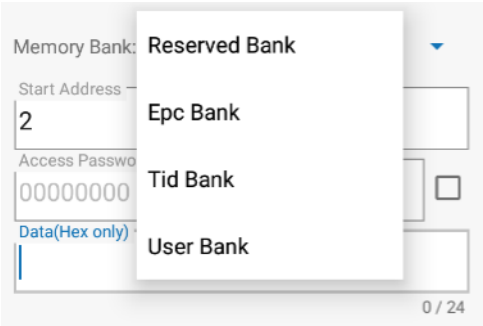
Edit Tag

Touch one tag to select the tag then tap **Edit Tag** at the bottom of the screen to go to the edit screen.



Write Tag

Touch to choose the **Memory Bank** type.



Edit the **Start Address** and **Block Count** according to needs.

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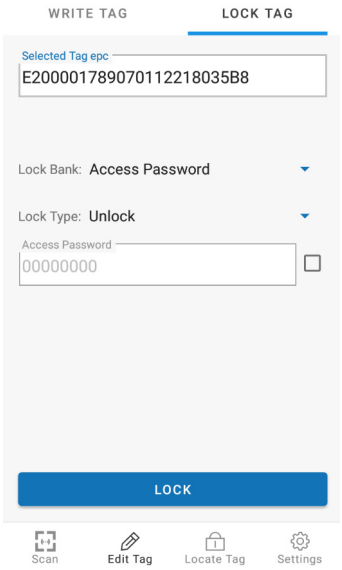
Lock Tag

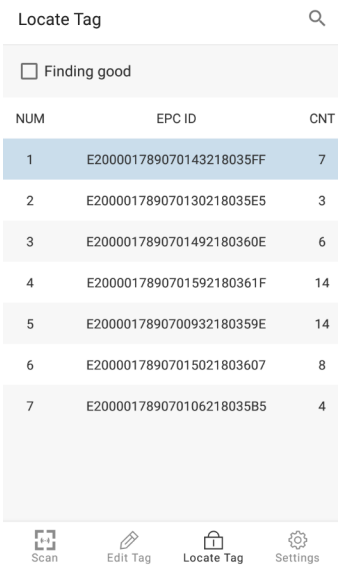
Touch **LOCK TAG** to switch to the Lock Tag screen.



Touch to choose the lock band and the lock type from the drop-down list. Enter the access password if necessary and touch **LOCK**.

Locate Tag

1. Touch **Locate Tag** at the bottom of the screen to go to the locate tag screen.



2. Touch to type the content you want to locate in the search bar. As you type, the app automatically filters to the target tag.

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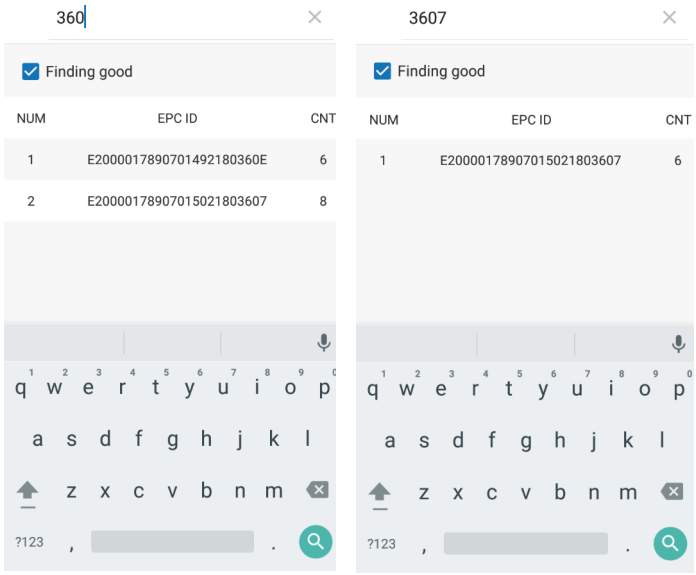
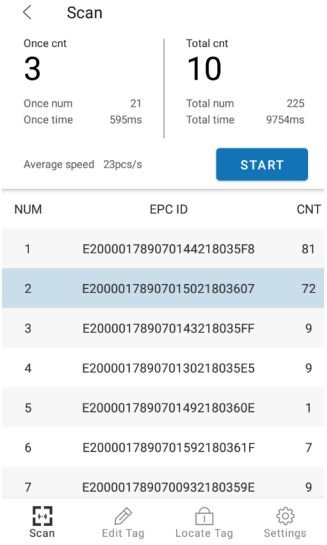


3. Select the tag you want and check "Finding good". Touch Scan to go back to the Scan screen. The located tag is highlighted in the list.



4. Touch **START** and move the mobile device to start finding the target good.

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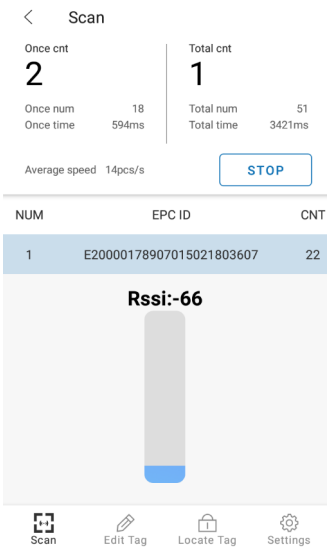
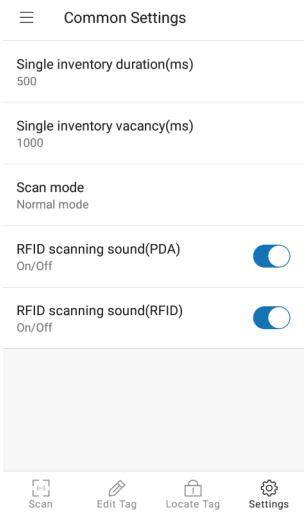


5. The IH45 beeps constantly when the target good is in the available range.

Settings

Touch Settings at the bottom of the screen to go to the Common Settings screen.



Common Settings

- Single inventory duration (Only Valid in normal mode)-Touch to set the duration.
- Single inventory vacancy (Only Valid in normal mode)-Touch to set the vacancy.
- Scan mode - Touch to set the normal mode or fast mode.
- RFID scanning sound(PDA) - Touch to turn on/off.
- RFID scanning sound(RFID) - Touch to turn on/off.

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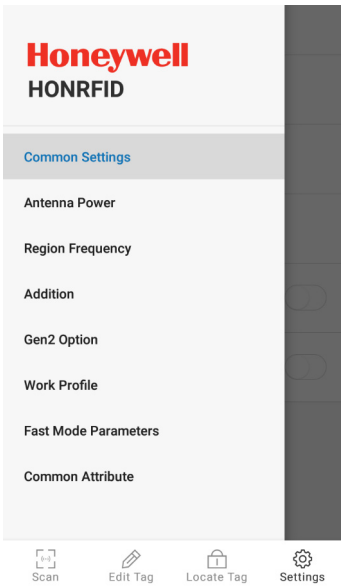
Touch ☰ at the top left to go to the other settings.



Setting	Description
Antenna Power	Ant read power Ant write power
Region Frequency	Set Region: China / Europe / N/A
Addition	Addition data type: None/Reserved Bank/Epc Bank/Tid Bank/User Bank Setting will take effect in fast mode after you check data in Return items in Fast Mode Parameters.
Gen2 Option	Session mode • S0: For a small number of Tags • S1: For large number of Tags • S2/S3: For special marked Tags
Fast Mode Parameters	Pause percentage: range: 0%~50% Return items: count/rssi/ant/frequency/time/pro/data
Common Attribute	• RFID module temperature • RFID module version • Battery level • Battery temperature • Bluetooth module version

About

Touch **About** on the Home screen to check the software version.

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CHAPTER 3

MAINTENANCE AND TROUBLESHOOTING

Maintenance

For trouble-free service, please observe the following tip when using the IH45 Reader:

Protect the IH45 Reader from temperature extremes. Do not leave it on the dashboard of a car on a hot day, and keep it away from heat sources.

Troubleshooting

Symptom	Possible Cause	Action
Nothing happens when the button is pressed	If the LEDs are not on, then the battery may need to be charged.	Charge the reader.
	The reader may have button actions disabled.	Contact technical support.
Red flash/ Green and amber flash alternately	There is a battery fault.	Replace the battery pack.
	The battery pack temperature is outside recommended limits.	Ensure charging only occurs between 0°C - 45°C.
The host Bluetooth® discovery does not find the reader.	The reader has powered off.	Press the button and ensure the blue LED is flashing.
	The reader is out of range.	Move the reader closer to the host.
Opening the Bluetooth virtual com port does not connect to the reader.	The host has paired to a different Bluetooth device.	Pair to the required reader.
	The host Bluetooth function has an error.	Warm boot the host. If this does not help, delete the reader from the favorites list and re-pair.
Other symptoms	Other fault	Run ASCII Remote Diagnostic and contact Support.

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