

IH25-0 Bluetooth® UHF RFID Reader



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.

Limited Warranty

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

Send Feedback

Your feedback is crucial to the continual improvement of our documentation. To provide feedback about this manual, contact the Honeywell Technical Communications department at ACSHSMTechnicalCommunications@honeywell.com.

| 1 | INTRODUCTION |
|---|--------------|
| | |

CHAPTER

The IH25 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.



Battery Installation

The battery is charged using a docking station and therefore is unlikely to need to be changed once installed.

Install the battery before using the reader for the first time.

- 1. To access the battery compartment, remove the battery cover screws and then the battery cover.
- 2. Insert the battery into the battery compartment.
- 3. Attach the battery cover and tighten the screws. Note that the torque should be 3.5kg.f.



Charging

To comply with international shipping regulations, the battery is discharged to less than 30% of its maximum capacity. It is therefore recommended that you fully charge the battery before using the reader for the first time.

To charge the reader, use the USB cable and AC charge adapter (Honeywell recommended) or a docking station.

- 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

Use the one-slot or four-slot docking station to charge IH25 and the mobile terminal.

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



Installing/Removing Device Case and Attaching Device

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



Note: When installing the bracket, pay attention to the angle and pressure to avoid damaging the product.

- 2. Ensure that the bracket on the bottom of the case and the socket on the reader are clean and free from dirt or debris.
- 3. Align the bracket with the socket, ensuring that it is parallel, and press the two parts together firmly until they click into place.



4. To remove the mobile terminal: Place the IH25 on a flat surface or hold it at the sides with both hands, push the buckle out with your thumbs, and lift the terminal out with your index finger.



5. To remove the bracket: Hold the handle with one hand and lift it from the side of the bracket with the other hand.



Reading RFID Tags

- 1. Turn on power to the reader. It will beep one time.
- 2. Power on the mobile terminal and launch the HONRFID app. Tap i on the right top corner of Connect screen and select Barcode Way then scan the QR code on the label attached at the bottom of the reader's main body.



- 3. Press the MODE button and release within three seconds to check IH25's operation mode. If RFID LED lights up, IH25 works in RFID mode. If 1D/2D LED lights up, it means IH25 works in Barcode mode. Press and hold the MODE button for at least three seconds to switch to RFID mode.
- 4. Press the trigger button to read tags.



Note

- The Barcode Way is only supported by Honeywell's mobile device. See Connect on page 11 for other connection methods.
- Make sure to switch on the Bluetooth function and Location (Settings > Security & location > Location) on the mobile device before connecting. Otherwise, the connection will fail.
- 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.

MODE Button and Status Indicators



disconnected from PDA)

connected successfully)

Solid blue: Bluetooth connected (one beep when

 $\widehat{\nabla}$

CHAPTER

HONRFID MOBILE APPLICATION FOR ANDROID

Overview

This chapter describes the HONRFID *Mobile Application for Android* that can be used with the IH25.

This application runs on Android mobile devices and demonstrates IH25 functions and tag operation. It allows the user to navigate to all screens whether or not the device is connected to the IH25 reader and when the inventory/locate operation is in progress.

Note: The content of this chapter is only based on the demo app showing the basic RFID function of the IH25. Customers should eventually integrate the RFID SDK into the source code of their own app to fully implement the function. For information on how 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 IH25 is in RFID mode.
- 3. Launch the HONRFID Mobile Application for Android on the mobile device.

Basic Operation

This section describes how to use the HONRFID application.

Home Screen

To access the HONRFID Mobile Application for Android, touch the App icon \mathcal{V} on the mobile device to display the *Home* screen.



Connect

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

| | 🖹 📓 1:27 PM |
|--------------------------------------|--------------|
| < Connec | t : |
| Bluetooth | Auto Connect |
| Device List | Search |
| IH25 Connected | Rssi:-60 |
| Mi Band 3 F1:F6:38:81:9F:D7 | Rssi:-76 |
| Mi Smart Band 4 F5:81:A1:80:F8:40 | Rssi:-87 |
| | |
| | |
| c | REATE READER |

Note: Before connecting, make sure to switch on the Bluetooth function on the mobile device.



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 IH25 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 IH25 to connect. The device beeps one time when successfully connected.
- 4. Tap CREATE READER at the bottom of the screen to pair with IH25 and go to the Scan screen.

QR Code Connect

Tap in the right top corner of the Connect screen and select Barcode Way to scan the barcode on IH25 to pair with IH25.

Note: The Barcode Way is only supported by Honeywell's mobile device.

Scan

1. Touch the Scan icon on the Home screen to go to the Scan screen (make sure to successfully connect with IH25 before scanning).



2. Touch START to start scanning tags that are in range.

| | | * 🖹 🖁 11 | :19 AM |
|-----------------------|-----------------|-----------------------------|--------------|
| < : | Scan | | |
| Once cnt | | Total cnt | |
| | | 9 | |
| Once num Once time | n 10 e 593ms | Total num Total time 224 | 159 69ms |
| Average s | speed 7pcs/s | STOF | • |
| NUM | EP | PCID | CNT |
| 1 | E2000017890 | 70143218035FF | 42 |
| 2 | E2000017890 | 70144218035F8 | 14 |
| 3 | E2000017890 | 70112218035B8 | 9 |
| 4 | E2000017890 | 701492180360E | 31 |
| 5 | E2000017890 | 70106218035B5 | 11 |
| 6 | E2000017890 | 70130218035E5 | 5 |
| 7 | E2000017890 | 700932180359E | 4 |
| Scan | Edit Tag | Locate Tag Se | کې ttings |

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 IH25 to start scanning tags and release the trigger button to stop scanning in RFID mode.

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.

| 💌 🌖 🛛 🖹 🖬 11:20 AM | | 11:20 AM | |
|-------------------------|--------------|-------------|------------------|
| WRIT | E TAG | LOCK | TAG |
| Selected Tag E200001 | 789070149 | 2180360E | |
| Memory Ba | nk: Reserved | Bank | • |
| Start Addres | S | Block Count | |
| Access | Password | | |
| Data(He | x only) | | |
| | | | 0/8 |
| | | | |
| | | | |
| | | | |
| R | EAD | WRIT | E |
| Scan | Edit Tag | Locate Tag | දිටු Settings |

Write Tag

Touch to choose the Memory Bank type.

| Memory Ban | k: Reserved Bank | |
|-----------------|------------------|-----|
| Start Address 2 | Epc Bank | |
| Access Passw | Tid Bank | |
| Data(Hex only |) User Bank | |
| | | 0/2 |

Edit the Start Address and Block Count according to needs.

Lock Tag

Touch LOCK TAG to switch to lock tag screen.

| | 🖹 🖹 12:19 PM |
|--|--|
| WRITE TAG | LOCK TAG |
| Selected Tag epc E20000178907011221 | 8035B8 |
| Lock Bank: Access Passw | ord 🝷 |
| Lock Type: Unlock | • |
| Access Password | |
| | |
| | |
| | |
| | |
| LOCK | George Carlos de |
| Scan Edit Tag L | cocate Tag Settings |

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.

| | * 🔍 🔺 📓 | 1:22 PM | 🗷 📟 🌖 👘 🛞 | 📱 🔒 3:31 PM |
|----------|-------------------------------|----------|---|--|
| | 360 | \times | 3607 | × |
| | Finding good | | Finding good | |
| NUM | EPC ID | CNT | NUM EPC ID | CNT |
| 1 | E2000017890701492180360E | 6 | 1 E200001789070150218036 | 07 6 |
| 2 | E20000178907015021803607 | 8 | | |
| | | | | |
| | | | | |
| | | Ŷ | | Ŷ |
| q | $w^2 e^3 r^4 t^5 y^6 u^7 i^8$ | o° p° | $q^{1} w^{2} e^{3} r^{4} t^{5} y^{6} u^{7}$ | i [®] o [°] p [°] |
| а | sd fghjk | I | as dfghj | k I |
| † | zxcvbnm | n 💌 | 🛖 z x c v b n | m 💌 |
| ?123 | , . | Q | ?123 , | . Q |

IH25 Bluetooth UHF RFID Reader

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.



5. IH25 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.

| | 🖹 📓 1:40 PM |
|-------------------------------------|-------------------|
| \equiv Common Settings | |
| Single inventory duration(ms) | |
| Single inventory vacancy(ms) | |
| Scan mode Normal mode | |
| RFID scanning sound(PDA) On/Off | |
| RFID scanning sound(RFID) On/Off | |
| | |
| | |
| Scan Edit Tag Locate | ි Tag Settings |

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.

Touch \equiv at the top left to go to the other settings.

| | | * | 🗎 10:59 AM |
|-----------------|--------------------------|------------|------------------|
| Hon Honr | <mark>eywe</mark> FID | | |
| Common S | ettings | | |
| Antenna Po | ower | | |
| Region Free | quency | | |
| Addition | | | \bigcirc |
| Gen2 Optio | n | | |
| Work Profil | e | | |
| Fast Mode | Parameters | | |
| Common A | ttribute | | |
| | | | |
| ۲ دی Scan | Edit Tag | Locate Tag | ද්ටු Settings |

Other Settings

| Settings | 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.



CHAPTER

MAINTENANCE AND TROUBLESHOOTING

Maintenance

For trouble-free service, please observe the following tip when using the IH25 Reader:

Protect the IH25 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

| Symptoms | 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 <i>Bluetooth®</i> 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 <i>Bluetooth</i> 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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