RFD4031 RFID Premium/Premium+

Version 1.1

Quick Start Guide

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About this Document

Notational Conventions

The following conventions are used in this document:

Bold text is used to highlight the following:

- Dialog box, window, and screen names.

- Drop-down list and list box names.

- Checkbox and radio button names.

- Checkbox and radio button names • Icons on a screen.

- Key names on a keypad

- Button names on a screen

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Bullets (•) indicate:

- Action items

- List of alternatives

- Lists of required steps that are not necessarily sequential

Sequential lists (for example, those that describe step-by-step procedures) appear as numbered lists.

Service Information

If you have a problem with your equipment, contact Zebra Global Customer Support for your region. Contact information is available at: zebra.com/support.

When contacting support, please have the following information available:

- Serial number of the unit

- Model number or product name

- Software type and version number

Zebra responds to calls by email, telephone, or fax within the time limits set forth in support agreements.

If your problem cannot be solved by Zebra Customer Support, you may need to return your equipment for servicing and will be given specific directions. Zebra is not responsible for any damages incurred during

shipment if the approved shipping container is not used. Shipping the units improperly can possibly void the warranty.

If you purchased your Zebra business product from a Zebra business partner, contact that business partner for support.

Related Documents

The following documents provide additional information about the RFD4031 sled:

*   RFD4031 RFID Premium/Premium+ Quick Start Guide, p/n MN-004375-xx

Unpacking

This chapter provides information on RFD4031 RFID Premium sled parts, battery installation, mobile device attachment, LED indications, and charging. Carefully remove all protective material from the RFD4031 RFID Premium sled and save the shipping container for later storage and shipping.

Verify the following items are in the box:

- RFD4031 RFD Premium or Premium Plus Sled
- Battery
- Lanyard
- Quick Start Guide

Inspect the equipment for damage. If any equipment is missing or damaged, contact the Zebra Support Center immediately.

For a full list of accessories that can be used with the RFD4031 Premium/Premium Plus sled, refer to the product specific Technical Accessory Guide available at zebra.com/support.

Getting Started with the RFD4031

The RFD4031 UHF RFID Premium sled provides RAIN Radio Frequency Identification (RFID) tag reading, writing, and locating capability to supported Zebra mobile computers and other host devices.

To use the RFD4031 sled for the first time with a mobile computer:

1. Insert the battery into the device.

2. Charge the RFD4031 sled using the charging cradle, charging cup, or USB-C cable.

3. Replace the cover with the adaptor that is specific to the mobile computer to be used with the sled.

4. Place the mobile computer into the adaptor headfirst.

5. Secure the mobile computer into the adaptor by pressing down on the bottom of the mobile computer.

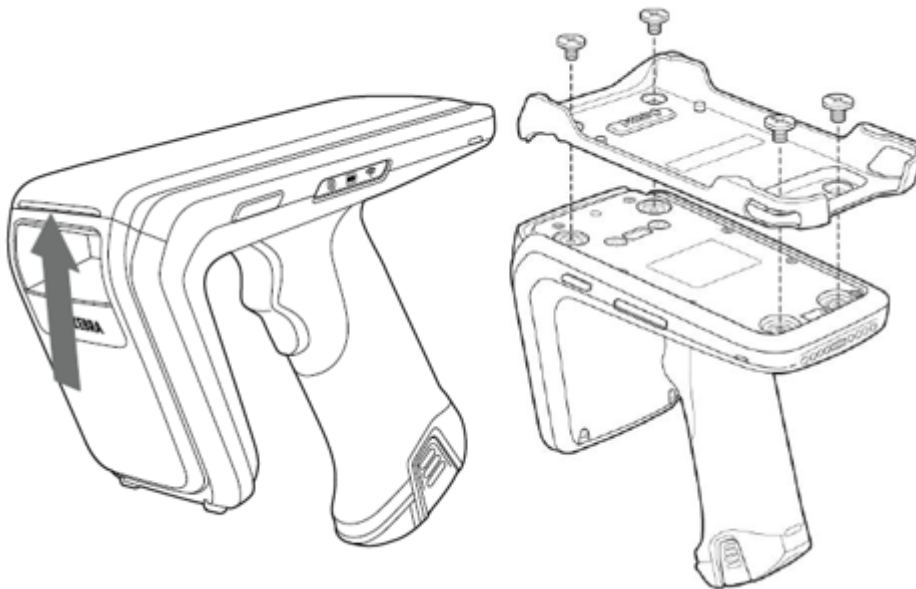6. Set the region using 123RFID Desktop or 123RFID Mobile.

For the latest versions of guides and software, go to: zebra.com/support.

For detailed information, refer to the Product Reference Guide at: zebra.com/support.

Adaptor Installation

To install the adaptor:

Figure 1 Adaptor Installation

1. Remove the cover of the sled by pulling up on the lip.
2. Secure the adaptor onto the RFD4031 by fastening the four coin screws into the sled.

Features

The following table outlines the features of the RFD4031 RFID Premium/Premium Plus sled.

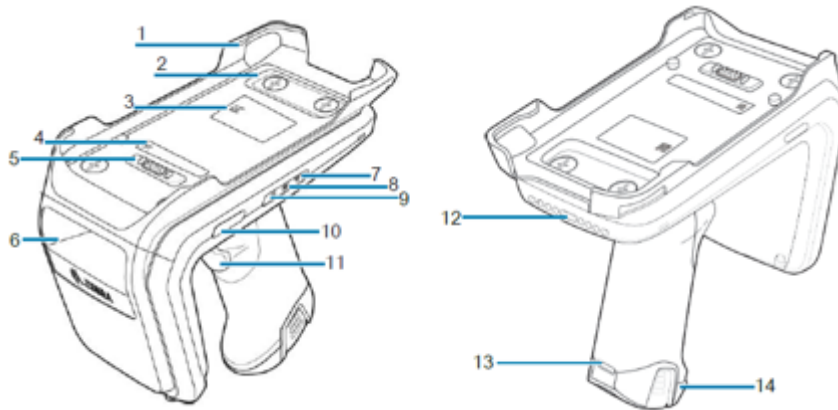**Figure 2**   RFD4031 Premium/Premium Plus Sled Features

Table 1   RFD4031 RFID Premium/Premium Plus Sled Features

1	Adaptor (Sold Separately)
2	Coin Screws (4)
3	Bluetooth Connection Manufacturing Label
4	Installation Video Label
5	eConnex Communication Port (eConnex enabled adaptors only)
6	Imager (Premium Plus Models Only)
7	Wi-Fi Status LED
8	Battery Status LED
9	Bluetooth Status LED
10	Decode LED
11	Tri-Function Trigger
12	Charging Contact and USB-C Port
13	Tethering Point for Handstrap

Table 1   RFD4031 RFID Premium/Premium Plus Sled Features (Continued)

14	Rubber Foot

Device Installation

To secure a mobile computer to the RFD4031 sled, place the top of the device fully forward into the RFD4031 sled adaptor and push down on the bottom of the mobile computer.

NOTE: Refer to the installation visual aide on the adaptor to view the correct device orientation for installation. For additional installation information, scan the QR code on the label to view the installation video.

NOTE: Use caution while installing the mobile computer into the adaptor and do not collide with the eConnex Communication Port.

Figure 3   Device Insertion

Device Removal

To remove the mobile computer from the RFD4031 sled, firmly hold the sled handle and lift the device off of the sled adaptor.

Figure 4   Device Removal

Pairing the Sled with a Mobile Computer

Pair the sled with a mobile computer by connecting directly with the communication port, scanning the barcode on the device, or by using the NFC feature on the RFD4031 to activate NFC Bluetooth pairing and facilitate Bluetooth communication between the sled and the mobile computer.
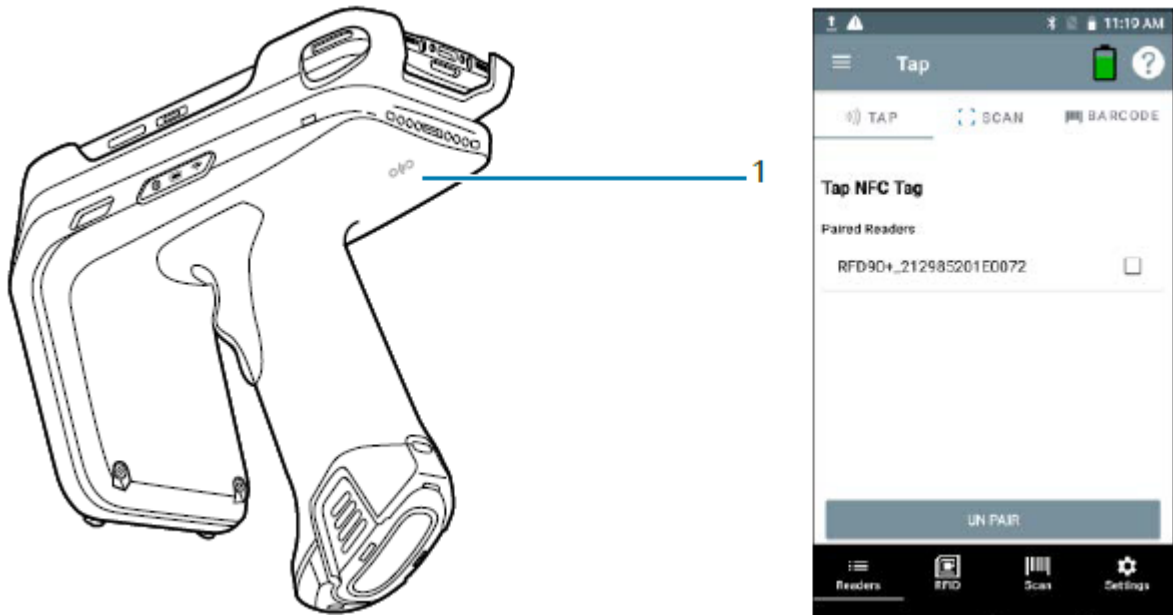
- To connect via scan, scan the code on the sled using the mobile computer to obtain the Bluetooth MAC address to pair the device to the sled.

Figure 5 Scan Bluetooth MAC Address
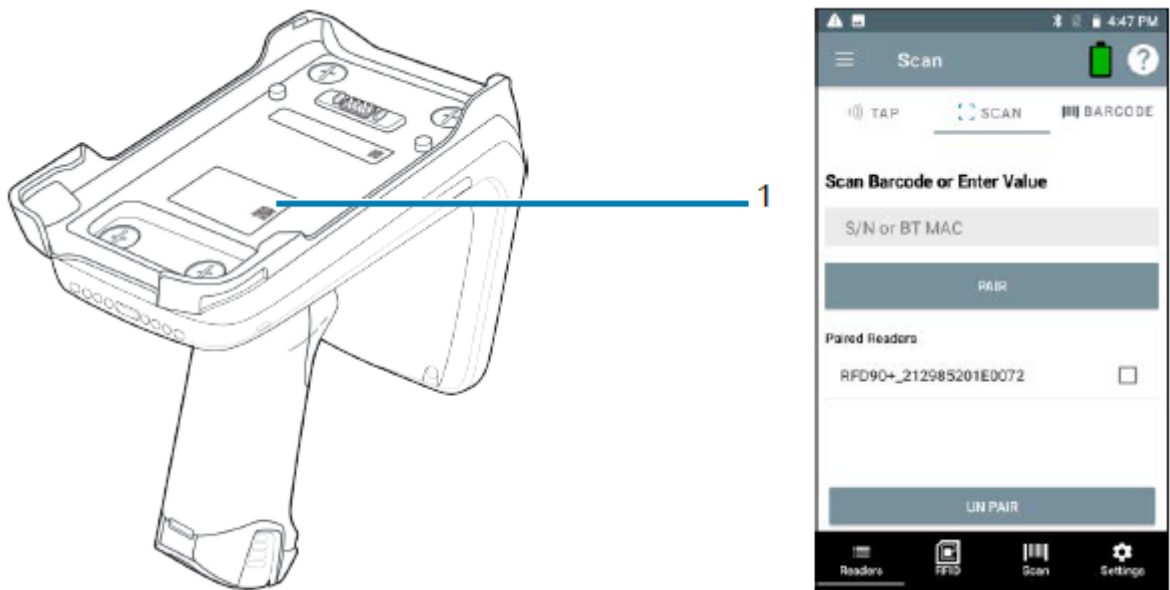
- To connect via NFC, align the NFC area behind the handle of the sled with the NFC area on the back of the mobile computer to pair.

Figure 6   Scan NFC Area to Pair Device

Once the sled has paired with a mobile computer, the sled recognizes the device going forward and automatically connects using the 123RFID Mobile or 123RFID Desktop Reader Discovery feature.

Battery Replacement

The following section outlines the procedure for replacing the battery in the RFD4031.

To install the battery:

Figure 7   Battery Insertion

1. Align the battery with the notch facing the back of the device
2. Slide the battery into the handle of the device.
3. Snap the battery into the place.

Battery Removal

To remove the battery:

Figure 8   Battery Removal

1. Pinch the clips on the battery to unlock.
2. Slide downwards to remove the battery from the device.

Pairing the Sled with a Mobile Computer

Pair the sled with a mobile computer by connecting directly with the communication port, scanning the barcode on the device, or by using the NFC feature on the RFD4031 to activate NFC Bluetooth pairing and facilitate Bluetooth communication between the sled and the mobile computer.

- To connect via scan, scan the code on the sled using the mobile computer to obtain the Bluetooth MAC address to pair the device to the sled.

Figure 9   Scan Bluetooth MAC Address
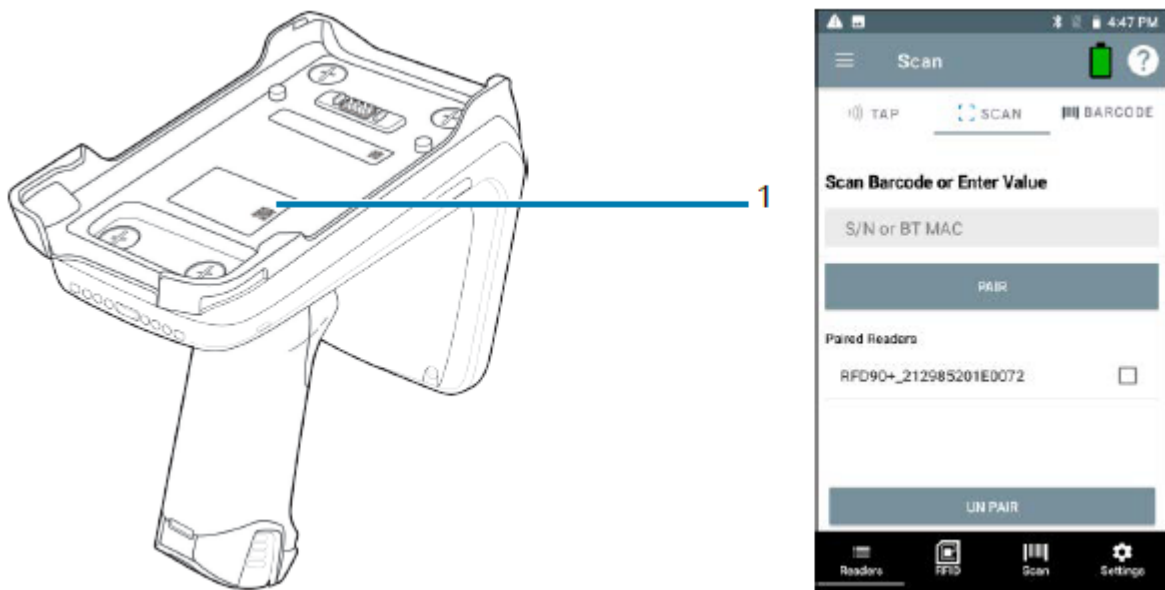
- To connect via NFC, align the NFC area behind the handle of the sled with the NFC area on the back of the mobile computer to pair.

Figure 10   Scan NFC Area to Pair Device
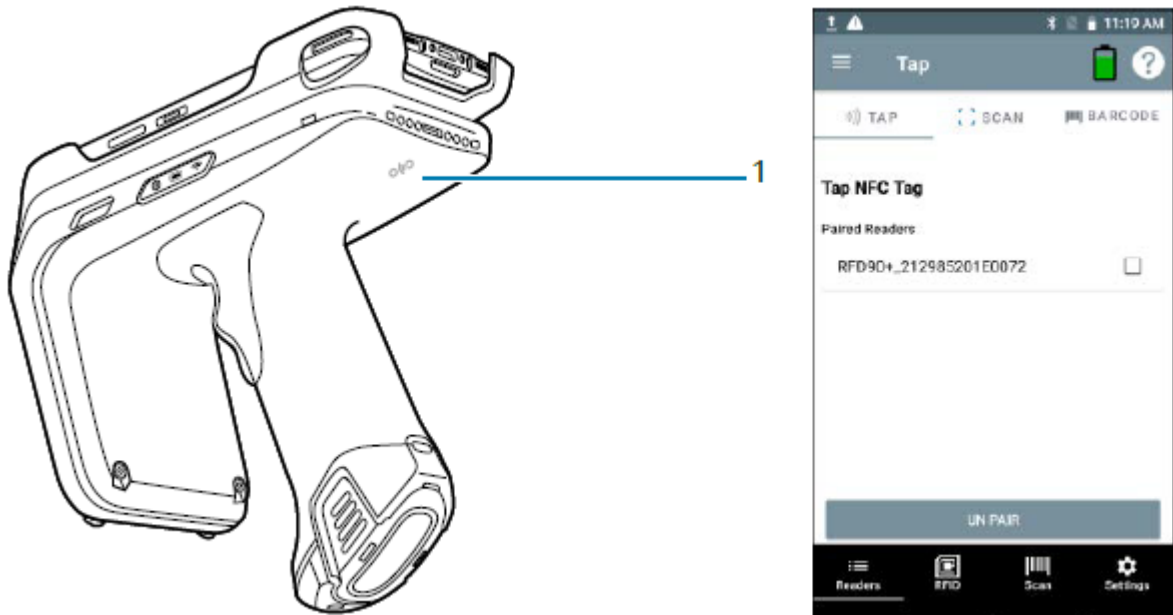
Once the sled has paired with a mobile computer, the sled recognizes the device going forward and automatically connects using the 123RFID Mobile or 123RFID Desktop Reader Discovery feature.

Using the Rubber Locking Foot

The RFD4031 comes with a standard rubber foot on the bottom of the sled. An optional locking foot that is used in place of the standard locking foot and secures the battery of the sled is available as a purchasable accessory. For a full list of accessories that can be used with the RFD4031 RFID Premium sled, refer to the product specific Technical Accessory Guide available at: zebra.com/support.

Figure 11   Rubber Locking Foot
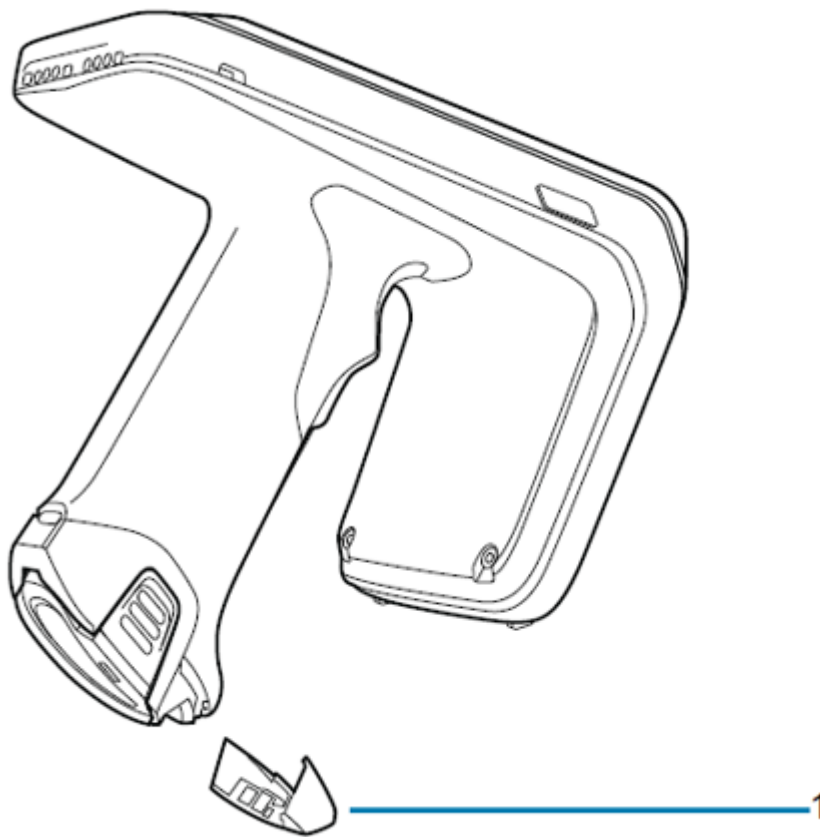
1	Rubber Locking Foot

Charging

Before using the RFD4031 for the first time, fully charge the battery by placing it in the charging cradle until the LED Power/Charging Indicator turns solid green. The RFD40 RFID sled and mobile computer may be charged in the charging cradle individually or attached together.

When an RFD4031 RFID sled is removed from a charging cradle, it is automatically powered on. If a reader is not used for a duration of thirty minutes, the reader enters Off mode.

> **NOTE:** The cradle does not charge the device if the battery is completely deplete

Figure 12   Single-Slot Charging Cradle
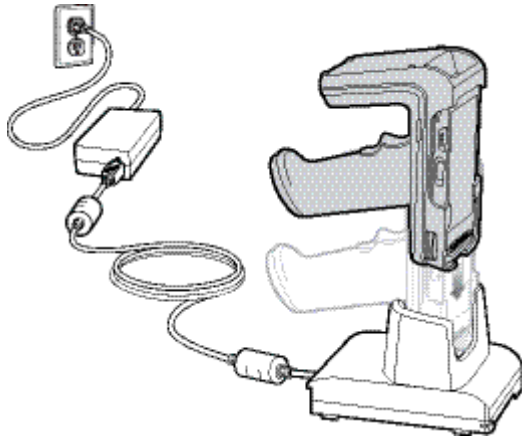
> **NOTE:** The cradle does not charge the device if the battery is completely depleted.

UI Indicators

The RFD4031 RFID Premium sled presents multiple forms of feedback to inform the user of various device states. The sled provides LED definitions for decode and battery status as well as beeper indications to indicate battery charge progress. The trigger on the device is capable of initiating a bootloader recovery and carrying out various programmable tasks.

LED Definitions

The sled provides user feedback in the form of LED indications for decode, battery, Bluetooth, and Wi-Fi states.

Decode LED Definitions

The following table outlines the context in which decode LED feedback is provided and the indication that is presented for a given device state.

NOTE: The LED indicators on the RFD4031 RFID Premium sled differ from the LED indicators on the mobile computer being used with the sled.

Table 2   RFD4031 Decode LED Indicators

Condition	Indication
Good Scan	Green
Scan Error	Red
RFID Rag Read Indicator Enabled	Green
Read Error	Red

Battery LED Definitions

The following table outlines the context in which battery LED feedback is provided and the indication that is presented for a given device state.

Table 3   RFD4031 Battery LED Definitions While Charging

Conditions	Indications
Pre-charging	Amber (Fast, Fast, Slow)
Charging	Amber (Blinking)
Fully Charged	Green (Stays On)

Table 3   RFD4031 Battery LED Definitions While Charging (Continued)

Conditions	Indications
Charging Error	Amber (Fast Blinking)

Bluetooth LED Definitions

The following table outlines the context in which Bluetooth LED feedback is provided and the indication that is presented for a given device state.

Table 4   RFD4031 Bluetooth LED Definitions

Condition	Indication
Looking to Pair	Amber (Blinking)
Pairing	Blue (Stays On)
Paired/Connected	Green (Stays On)
Error	Red (Stays On)

Wi-Fi LED Definitions

The following table outlines the context in which Wi-Fi LED feedback is provided and the indication that is presented for a given device state.

Table 5   RFD4031 Wi-Fi LED Definitions

Condition	Indication
Connecting	Green (Blinking)
Connected	Green (Stays On)
Transmission Error/Out of Range	Red (Stays On)

Beeper Indications

 The sled provides user feedback in the form of beeper tones for decode, battery, Bluetooth, and Wi-Fi states.

Decode Beeper Indications

The following table outlines the context in which beeper feedback is provided and the indication that is presented for a specific decode event.

Table 6   RFD4031 RFID Decode Beeper Indications

Condition	Tone
Good Decode	Short high tone
Decode Transmission Error	No beep
Good RFID Decode	Short medium tone
RFID Error	No beep

Table 6   RFD4031 RFID Decode Beeper Indications (Continued)

Condition	Tone
Error Message (Other)	No beep
Sled Memory Full (Batch Mode)	Long tones for 5 seconds

Battery Beeper Indications

The following table outlines the context in which decode LED feedback is provided and the indication that is presented for a given device state.

Table 7   RFD4031 RFID Battery Beeper Indications

Condition	Tone
Low Battery (20%)	Medium-length tones
Lower Battery (10%)	Short tones - repeat
Suspend	High/Medium/Low
Charging	Short tone when the charger is connected.
Fully Charged	One beep
Charging Error	Three beeps (single occurrence)
Power On	Low/Medium/High beep

Bluetooth Beeper Indications

The following table outlines the context in which beeper feedback is provided and the indication that is presented for a specific Bluetooth state.

Table 8   RFD4031 Bluetooth Beeper Indications

Condition	Tone
On/Not Connected	No beep
On/Pairing in Process	No beep
On/Connected	Short/Low/High
Out of Range	Short/High/Low
Pairing Error	No beep
Off	No beep

Wi-Fi Beeper Indications

The following table outlines the context in which beeper feedback is provided and the indication that is presented for specific Wi-Fi states.

Table 9   RFD4031 Wi-Fi Beeper Indications

Condition	Tone
On/Not Connected	No beep

Table 9   RFD4031 Wi-Fi Beeper Indications (Continued)

Condition	Tone
On/Pairing in Process	No beep
On/Connected	Short/Low/High
Out of Range	Short/High/Low
Pairing Error	No beep
Off	No beep

Trigger Modes

The follow table outlines the supported trigger functions of the RFD4031.

NOTE: By default, the device assumes the upper trigger as the RFID decode trigger and the lower trigger as the mobile computer decode trigger.

Table 10   Trigger Modes

Condition	Upper Trigger	Lower Trigger	Both Triggers	Description
RFID Start/Stop	X	-	-	User Programmable
Barcode Start/Stop	-	X	-	User Programmable
Start Bootloader Recovery	-	X	-	Press and hold the lower trigger for five seconds while inserting the battery.
Configurable/ Signal Intent to Mobile Device	-	-	X	Feature support is determined by the mobile computer being used with the device.