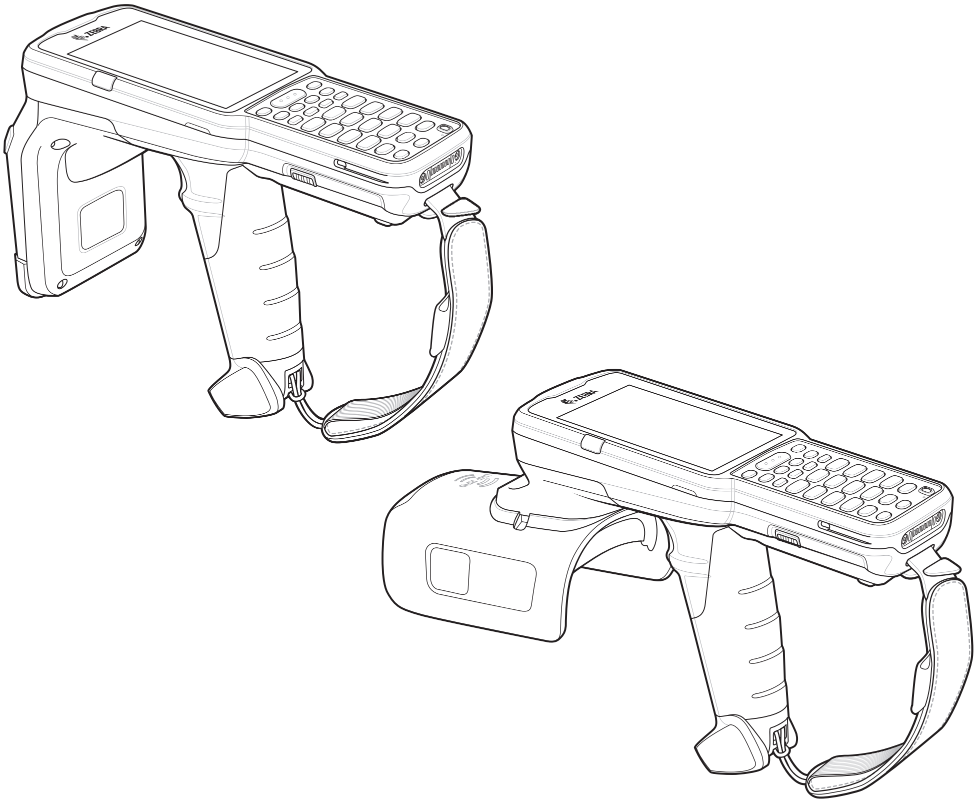
MC3300R

RFID Mobile Computer



Integrator Guide Supplement

ZEBRA

MN-003180-02

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Revision History

Changes to the original manual are listed below:

Change	Date	Description
-01 Rev A	11/2018	Initial release.
-02 Rev A	04/2019	Removed Scan-Scan-Write; OS updated to Android 8.1 Oreo.

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About This Guide

Introduction

The MC3300R RFID Mobile Computer Integrator Guide Supplement provides the unique set up and operating procedures for MC3300R RFID mobile computers. This guide is intended as a supplement to the MC33XX Integrator Guide, p/n MN-003136-xx. Procedures common to MC3300 products are addressed in the MC33XX Integrator Guide.

NOTE: Screens and windows pictured in this guide are samples and can differ from actual screens.

Configurations

Table 1 MC3300R Configurations

Configuration	Description
MC333R-GI2HG4US	MC3330R UHF RFID GUN, CIRCULAR ANTENNA, 802.11 A/B/G/N/AC, SE4750SR 2D IMAGER W/ LED AIMER, 29 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, FCC BANDS
MC339R-GE2HG4US	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4850 EXTENDED RANGE 2D IMAGER, 29 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, FCC BANDS
MC339R-GF2HG4US	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4750MR 2D IMAGER, 29 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, FCC BANDS
MC333R-GI2HG4EU	MC3330R UHF RFID GUN, CIRCULAR ANTENNA, 802.11 A/B/G/N/AC, SE4750SR 2D IMAGER W/ LED AIMER, 29 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, ETSI BANDS
MC339R-GE2HG4EU	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4850 EXTENDED RANGE 2D IMAGER, 29 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, ETSI BANDS
MC339R-GF2HG4EU	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4750MR 2D IMAGER, 29 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, ETSI BANDS

Table 1 MC3300R Configurations

Configuration	Description
MC333R-GI2HA4IL	MC3330R UHF RFID GUN, CIRCULAR ANTENNA, 802.11 A/B/G/N/AC, SE4750SR 2D IMAGER W/ LED AIMER, 29 KEY, 2X BATTERY, AOSP, 4GB RAM / 32GB ROM, ISRAEL ONLY
MC333R-GI4HG4IN	MC3330R UHF RFID GUN, CIRCULAR ANTENNA, 802.11 A/B/G/N/AC, SE4750SR 2D IMAGER W/ LED AIMER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, INDIA ONLY
MC339R-GF4HG4IN	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4750MR 2D IMAGER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, INDIA ONLY
MC333R-GI4HG4JP	MC3330R UHF RFID GUN, CIRCULAR ANTENNA, 802.11 A/B/G/N/AC, SE4750SR 2D IMAGER W/ LED AIMER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, JAPAN ONLY
MC333R-GI4HG4WR	MC3330R UHF RFID GUN, CIRCULAR ANTENNA, 802.11 A/B/G/N/AC, SE4750SR 2D IMAGER W/ LED AIMER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, WORLDWIDE (902-928 MHZ EXCL. NA)
MC339R-GE4HG4WR	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4850 EXTENDED RANGE 2D IMAGER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, WORLDWIDE (902-928 MHZ EXCL. NA)
MC339R-GF4HG4WR	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4750MR 2D IMAGER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, WORLDWIDE (902-928 MHZ EXCL. NA)
MC333R-GI3HG4US	MC3330R UHF RFID GUN, CIRCULAR ANTENNA, 802.11 A/B/G/N/AC, SE4750SR 2D IMAGER W/ LED AIMER, 38 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, FCC BANDS
MC339R-GE3HG4US	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4850 EXTENDED RANGE 2D IMAGER, 38 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, FCC BANDS
MC339R-GF3HG4US	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4750MR 2D IMAGER, 38 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, FCC BANDS
MC333R-GI4HG4US	MC3330R UHF RFID GUN, CIRCULAR ANTENNA, 802.11 A/B/G/N/AC, SE4750SR 2D IMAGER W/ LED AIMER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, FCC BANDS
MC339R-GE4HG4US	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4850 EXTENDED RANGE 2D IMAGER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, FCC BANDS
MC339R-GF4HG4US	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4750MR 2D IMAGER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, FCC BANDS
MC333R-GI4HA4CN	MC3330R UHF RFID GUN, CIRCULAR ANTENNA, 802.11 A/B/G/N/AC, SE4750SR 2D IMAGER W/ LED AIMER, 47 KEY, 2X BATTERY, AOSP, 4GB RAM / 32GB ROM, CHINA ONLY

Table 1 MC3300R Configurations

Configuration	Description
MC339R-GE4HA4CN	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4850 EXTENDED RANGE 2D IMAGER, 47 KEY, 2X BATTERY, AOSP, 4GB RAM / 32GB ROM, CHINA ONLY
MC339R-GF4HA4CN	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4750MR 2D IMAGER, 47 KEY, 2X BATTERY, AOSP, 4GB RAM / 32GB ROM, CHINA ONLY
MC333R-GI3HG4EU	MC3330R UHF RFID GUN, CIRCULAR ANTENNA, 802.11 A/B/G/N/AC, SE4750SR 2D IMAGER W/ LED AIMER, 38 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, ETSI BANDS
MC339R-GE3HG4EU	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4850 EXTENDED RANGE 2D IMAGER, 38 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, ETSI BANDS
MC339R-GF3HG4EU	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4750MR 2D IMAGER, 38 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, ETSI BANDS
MC333R-GI4HG4EU	MC3330R UHF RFID GUN, CIRCULAR ANTENNA, 802.11 A/B/G/N/AC, SE4750SR 2D IMAGER W/ LED AIMER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, ETSI BANDS
MC339R-GE4HG4EU	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4850 EXTENDED RANGE 2D IMAGER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, ETSI BANDS
MC339R-GF4HG4EU	MC3390R UHF RFID GUN, LINEAR ANTENNA, 802.11 A/B/G/N/AC, SE4750MR 2D IMAGER, 47 KEY, 2X BATTERY, GMS, 4GB RAM / 32GB ROM, ETSI BANDS

Chapter Descriptions

Topics covered in this guide are as follows:

- Getting Started provides information on RFID technology and MC3300R LED indications.
- Accessories describes the available accessories and how to use them with MC3300R devices.
- Zebra RFID Mobile Application for Android describes the Zebra RFID Mobile Application for Android which demonstrates MC3300R capability and tag operation functionality.
- RFID Manager describes how to configure the Zebra RFID Manager Application for MC3300R devices.
- Troubleshooting describes cleaning, maintenance, and troubleshooting procedures.
- StageNow provides a reference to access this easy Wizard-based tool that allows even complex Staging profiles to become simple to create.
- Import RFID Manager Into StageNow provides instructions necessary to generate an RFID Firmware update profile and import RFID CSP plug-in into the StageNow application.
- Troubleshooting provides troubleshooting solutions for potential problems during MC3300R operation.
- Technical Specifications provides the technical specifications for MC3300R devices.

Notational Conventions

The following conventions are used in this document:

- “RFID mobile computer” refers to MC3300R RFID Mobile Computers.
- Bold text is used to highlight the following:
  - Dialog box, window and screen names
  - Drop-down list and list box names
  - Check box and radio button names
  - Icons on a screen
  - Key names on a keypad
  - Button names on a screen.
- Bullets (•) indicate:
  - Action items
  - Lists of alternatives
  - Lists of required steps that are not necessarily sequential
- Sequential lists (e.g., those that describe step-by-step procedures) appear as numbered lists.

Icon Conventions

The documentation set is designed to give the reader more visual clues. The following graphic icons are used throughout the documentation set. These icons and their associated meanings are described below.

NOTE: NOTE contains information more important than the surrounding text, such as exceptions or preconditions. They also refer the reader elsewhere for additional information, remind the reader how to complete an action (when it is not part of the current procedure, for instance), or tell the reader where something is located on the screen. There is no warning level associated with a note.

CAUTION: The word CAUTION with the associated safety icon implies information that, if disregarded, may result in minor or moderate injury, or serious product damage.

WARNING: The word WARNING with the associated safety icon implies information that, if disregarded, could result in death or serious injury, or serious product damage.

Related Documents

The following documents provide more information about the reader.

- MC3330R Quick Reference Guide, p/n MN-003182-xx.
- MC3390R Quick Reference Guide, p/n MN-003207-xx.
- Zebra RFID SDK for Android Developer Guide, p/n MN-003158-xx.

For the latest version of this guide and all guides, go to: www.zebra.com/support.

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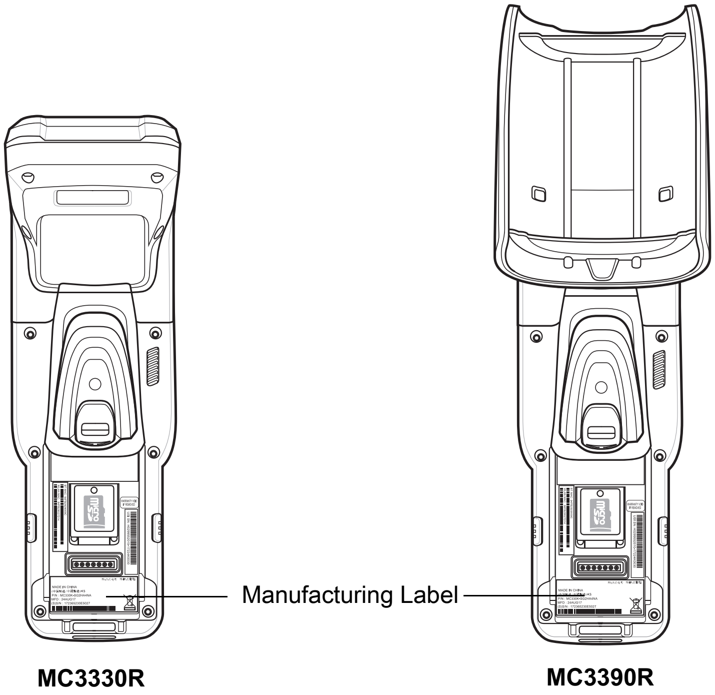
If you have a problem with your equipment, contact Zebra Support Center for your region. Contact information is available at: www.zebra.com/support.

When contacting the Zebra Support Center, please have the following information available:

- Serial number of the unit (found on manufacturing label)
- Model number or product name (found on manufacturing label)
- Software type and version number.

Figure 1 Manufacturing Label



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

If the problem cannot be solved by the Zebra Support Center, the user may need to return the 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.

Remove the microSD card from the device before shipping for service.

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Provide Documentation Feedback

If you have comments, questions, or suggestions about this guide, send an email to EVM-Techdocs@zebra.com.

Getting Started

Introduction

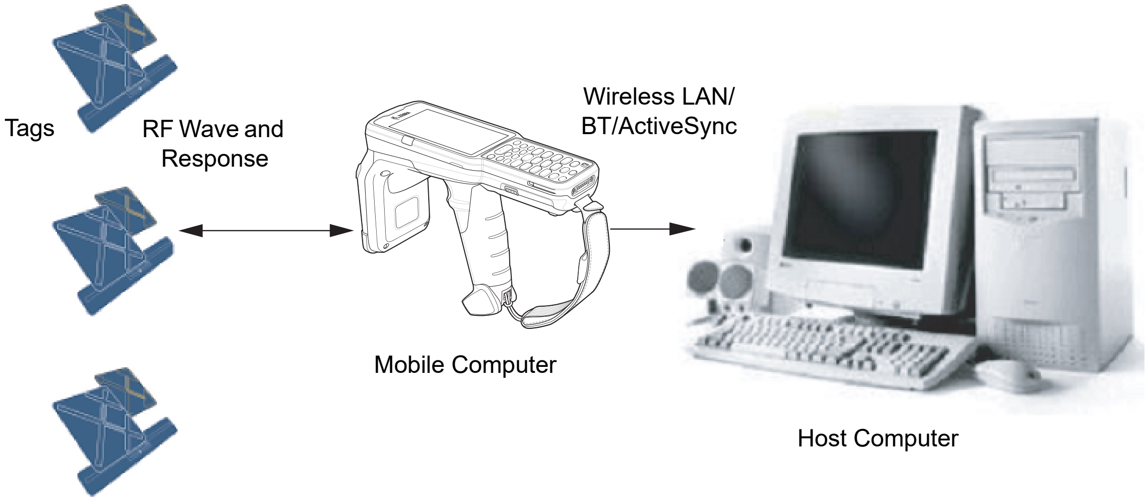
This chapter provides an overview of RFID technology and components, and describes the MC3300R RFID mobile computer LED indications.

RFID Technology Overview

RFID (Radio Frequency Identification) is an advanced automatic identification (Auto ID) technology that uses radio frequency signals to identify tagged items. An RFID tag contains a circuit that can store data. This data may be pre-encoded or can be encoded in the field. The tags come in a variety of shapes and sizes.

To read a tag, the mobile computer sends out radio frequency waves using its integrated antenna. This RF field powers and charges the tags, which are tuned to receive radio waves. The tags use this power to modulate the carrier signal. The reader interprets the modulated signal and converts the data to a format for computer storage. The computer application translates the data into an understandable format.

Figure 2 RFID System Elements



RFID Components

Zebra RFID solutions offer low cost, long read range, and a high read rate. These features provide real time end-to-end visibility of products and assets in the factory, distribution center, retail outlet, or other facility. The MC3300R RFID system consists of the following components:

Silicon-based RFID tags that attach to retail products, vehicles, trailers, containers, pallets, boxes, etc.

An integrated antenna that supports applications such as item level tracking and asset tracking.

An embedded radio module that powers and communicates with tags for data capture and provides host connectivity for data migration.

Tags

Tags contain embedded chips that store unique information. Available in various shapes and sizes, tags, often called transponders, receive and respond to data requests. Tags require power to send data.

There are several categories of tags based on the protocol they support, read/write memory, and power options:

Active RFID tags are powered by internal light-weight batteries, and also use these batteries to broadcast radio waves to the reader.

Semi-passive RFID tags are also powered by internal light-weight batteries, but draw broadcasting power from the reader.

Passive RFID tags are powered by a reader-generated RF field. These tags are much lighter and less expensive than active tags, and are typically applied to less expensive goods.

Antenna

Antennas transmit and receive radio frequency signals.

Radio Module

The radio module communicates with the tags and transfers the data to a host computer. It also provides features such as filtering, CRC check, and tag writing. The MC3300R RFID mobile computer supports standard RFID tags as described by EPCGlobalTM Class 1 Gen2 protocol.

LED Indications

The Charge LED Indicator indicates the charge status.

Table 2 LED Charge Indicators

Status	Indications
Off	The battery is not charging. The battery is not inserted correctly in the cradle or connected to a power source. Cradle is not powered.
Green Fast (20 ms)	Tag read and/or write.

Status	Indications
Green Slow (200 ms)	Firmware update in progress.
Red (5 s); Green Slow (200 ms)	Firmware recovery mode followed by firmware update.

Setting Up the MC3300R

To start using the MC3300R for the first time:

- Ensure the battery is installed
- Charge the MC3300R
- Power on the MC3300R
- Remove MC3300R from charger
- Set the region and power level (using the RFID Manager Application, Demo Application, or the partner application).

Accessories

Introduction

This chapter provides information on using the accessories for the device.

MC3300R Accessories

The table below lists the accessories available for the MC3300R.

Table 3 MC3300R Accessories

Accessory	Part Number	Description
Cradles		
1-Slot USB Charge Cradle with Spare Battery Charger	CRD-MC33-2SUCHG-01	Charges the MC3300R main battery and a spare battery, and synchronizes the MC3300R with a host computer through a USB connection. Requires power supply (PWR-BGA12V50W0WW), DC line cord (CBL-DC-388A1-01) and a country specific grounded AC line cord.
5-Slot Charge Only ShareCradle	CRD-MC33-5SCHG-01	Charge only. Charges up to five MC3300Rs. Requires power supply (PWR-BGA12V108W0WW), DC line cord (CBL-DC-381A1-01) and a country specific grounded AC line cord.
5-Slot Ethernet ShareCradle	CRD-MC33-5SETH-01	Charges up to five MC3300Rs and provides Ethernet communication for up to five devices. Requires power supply (PWR-BGA12V108W0WW), DC line cord (CBL-DC-381A1-01) and a country specific grounded AC line cord.

Table 3 MC3300R Accessories (Continued)

Accessory	Part Number	Description
4-Slot Charge ShareCradle with 4-Slot Battery Charger	CRD-MC33-4SC4BC-01	Charge only. Charges up to four MC3300Rs and up to four spare batteries. Requires power supply (PWR-BGA12V108W0WW), DC line cord (CBL-DC-381A1-01) and a country specific grounded AC line cord.
4-Slot Ethernet ShareCradle with 4-Slot Battery Charger	CRD-MC33-4SE4BC-01	Charges up to four MC3300Rs and up to four spare batteries and provides Ethernet communication for up to four MC3300Rs. Requires power supply (PWR-BGA12V108W0WW), DC line cord (CBL-DC-381A1-01) and a country specific grounded AC line cord.
Chargers		
4-Slot Spare Battery Charger	SAC-MC33-4SCHG-01	Charges up to four MC3300R spare batteries. Requires power supply (PWR-BGA12V50W0WW), DC line cord (CBL-DC-388A1-01) and a country specific grounded AC line cord.
20-Slot Spare Battery Charger	SAC-MC33-20SCHG-01	Charges up to 20 MC3300R spare batteries. Requires power supply (PWR-BGA12V108W0WW), DC line cord (CBL-DC-381A1-01) and a country specific grounded AC line cord.
Power Supply	PWR-BGA12V50W0WW	Level VI power supply. Provides 12 VDC, 2.5A power to the 1-Slot USB Charge Cradle and the 4-Slot Spare Battery Charger. Requires a DC line cord (CBL-DC-388A1-01) and a country specific grounded AC line cord.
Power Supply	PWR-BGA12V108W0WW	Level VI power supply. Provides 12 VDC, 2.5A power to the 5-Slot Charge Only Cradle, 5-Slot Ethernet Cradle, 5-Slot Charge Cradle with 4-Slot Battery Charger, 5-Slot Ethernet Cradle with 4-Slot Battery Charger and 20-Slot Battery Charger. Requires a DC line cord (CBL-DC-381A1-01) and a country specific grounded AC line cord.

Table 3 MC3300R Accessories (Continued)

Accessory	Part Number	Description
Power Supply	PWR-WUA5V12W0US	Wall adapter; Provides 12 VDC, 2.5A power to the USB Charge Cable. Includes plug adapter for use in the United States.
Power Supply	PWR-WUA5V12W0GB	Provides 12 VDC, 2.5A power to the USB Charge Cable. Includes plug adapter for use in the European Union.
Power Supply	PWR-WUA5V12W0EU	Provides 12 VDC, 2.5A power to the USB Charge Cable. Includes plug adapter for use in the United Kingdom.
Power Supply	PWR-WUA5V12W0AU	Provides 12 VDC, 2.5A power to the USB Charge Cable. Includes plug adapter for use in Australia.
Power Supply	PWR-WUA5V12W0CN	Provides 12 VDC, 2.5A power to the USB Charge Cable. Includes plug adapter for use in China.
Power Supply	PWR-WUA5V12W0IN	Provides 12 VDC, 2.5A power to the USB Charge Cable. Includes plug adapter for use in India.
US AC Line Cord	23844-00-00R	Provides power to 3–wire power supplies PWR-BGA12V50W0WW and PWR-BGA12V108W0WW.
DC Line Cord	CBL-DC-381A1-01	Provides power from the power supply (PWR-BGA12V108W0WW) to the 5-Slot Charge Only Cradle, 5-Slot Ethernet Cradle, 5-Slot Charge Cradle with 4-Slot Battery Charger, 5-Slot Ethernet Cradle with 4-Slot Battery Charger and 20-Slot Battery Charger.
DC Line Cord	CBL-DC-388A1-01	Provides power from the power supply (PWR-BGA12V150W0WW) to the 1-Slot USB Charge Cradle and 4-Slot Battery Charger.
Cables		
USB Charge Cable	CBL-MC33-USBCHG-01	Provides power and/or communication over USB to the device. Requires wall adapter/power supply PWR-WUA5V12W0xx.
1-Slot Cradle USB Cable	25-124330-01R	Provides USB communication through the 1-Slot USB cradle to the host computer.

Table 3 MC3300R Accessories (Continued)

Accessory	Part Number	Description
Miscellaneous		
Cradle Adapter	ADP-MC33-CRDCUP-01	MC3300R Charge Only Adapter for backwards compatibility with MC32 cradles. Works with MC32N0 1-Slot USB Cradle, 4-Slot Charge Only Cradle, and 4-Slot Ethernet Cradles.
5200 mAh Battery (Extended PowerPrecision+)	BTRY-MC33-52MA-01	Replacement extended capacity battery.
	BTRY-MC33-52MA-10	Replacement extended capacity battery (10–pack).
	BTRY-MC33-52MA-IN	Replacement extended capacity battery (India).
Hand Strap	SG-MC33-HDSTPG-01	Replacement hand strap for the MC3300R. Hand strap loop holds an optional stylus (SG-TC7X-STYLUS-03).
Fabric Holster	SG-MC3021212–01R	Provides a soft, clip on holster and a shoulder strap for the MC3300R.
Shoulder Strap	58-40000-007R	Universal shoulder strap.
Belt	11-08062-02R	Belt for fabric holster.
Rubber Boot	SG-MC33-RBTG-02 SG-MC33-RBTG-03	Provides additional protection for wear and tear of the MC3300R.
Tempered Glass Screen Protector	MISC-MC33-SCRN-01	Provides additional protection for display (5-pack).
Stylus and Tether	SG-TC7X-STYLUS-03	Conductive carbon-filled stylus for capacitive touch panel; includes coiled tether (3-pack).

Compatibility

The table below displays compatibility between MC3300R devices and MC32N0 mobile computers and accessories.

Table 4 Compatibility

	MC3300R PP+ Batteries	MC32N0 PP Batteries	MC3300R Cradles	MC32N0 Cradles	MC3300R Battery Charger	MC32N0 Battery Charger
MC3300R mobile computer	Yes	Yes	Yes	Yes w/adapter	N/A	N/A
MC32N0 mobile computer	No	Yes	No	Yes	N/A	N/A
MC3300R PP+ Battery	N/A	N/A	Yes	No	Yes	No
MC32N0 PP Battery	N/A	N/A	Yes	Yes	Yes	Yes

- MC3300R mobile computers are compatible with all batteries (MC3300R PowerPrecision+ and MC32N0 PowerPrecision).
- MC3300R mobile computer is compatible with all cradles.

  An additional adapter is needed to use any MC32N0 cradle slot, which provides charge only, no communication.
- MC3300R battery charger slots are compatible with all batteries (MC3300R PowerPrecision+ and MC32N0 PowerPrecision).
- MC32N0 mobile computers are not compatible with MC3300R cradles.

Battery Comparison

The table below displays a comparison of the MC3300R batteries with the MC32N0 batteries.

Table 5 Battery Comparison

Feature	MC32N0	MC3300R
Battery Type	PowerPrecision	PowerPrecision+
Includes Zebra and PowerPrecision+ recessed logos	No	Yes
Back Label	Grey	Blue

Battery Compatibility

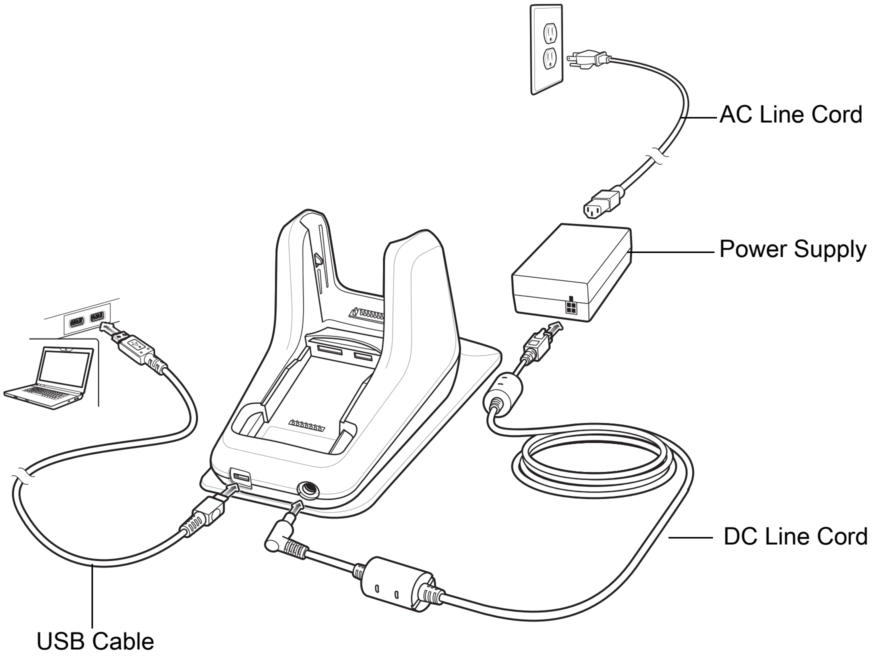
- MC3300R PowerPrecision+ batteries are compatible with all MC3300R mobile computers and accessories.
- MC3300R PowerPrecision+ batteries are not compatible with MC32N0 mobile computers and accessories.
- MC32N0 PowerPrecision batteries are compatible with all MC32N0 mobile computers and accessories.
- MC32N0 PowerPrecision batteries are compatible with all MC3300R mobile computers and accessories.

1-Slot USB Charge Cradle

The 1-Slot USB Charge Cradle:

- Provides 9 VDC power for charging the mobile computer and charging the battery.
- Provides 4.2 VDC power to charge the spare battery.
- Provides a USB port for data communication between the mobile computer and a host computer or other USB devices (e.g., a printer).
- Synchronizes information between the mobile computer and a host computer. With customized or third party software, it can also synchronize the mobile computer with corporate databases.
- Compatible with the following batteries:
    - MC3300R 5200 mAh PowerPrecision+ extended battery.
    - MC32N0 5200 mAh PowerPrecision extended battery.

Figure 3 1-Slot USB Charge Cradle Setup

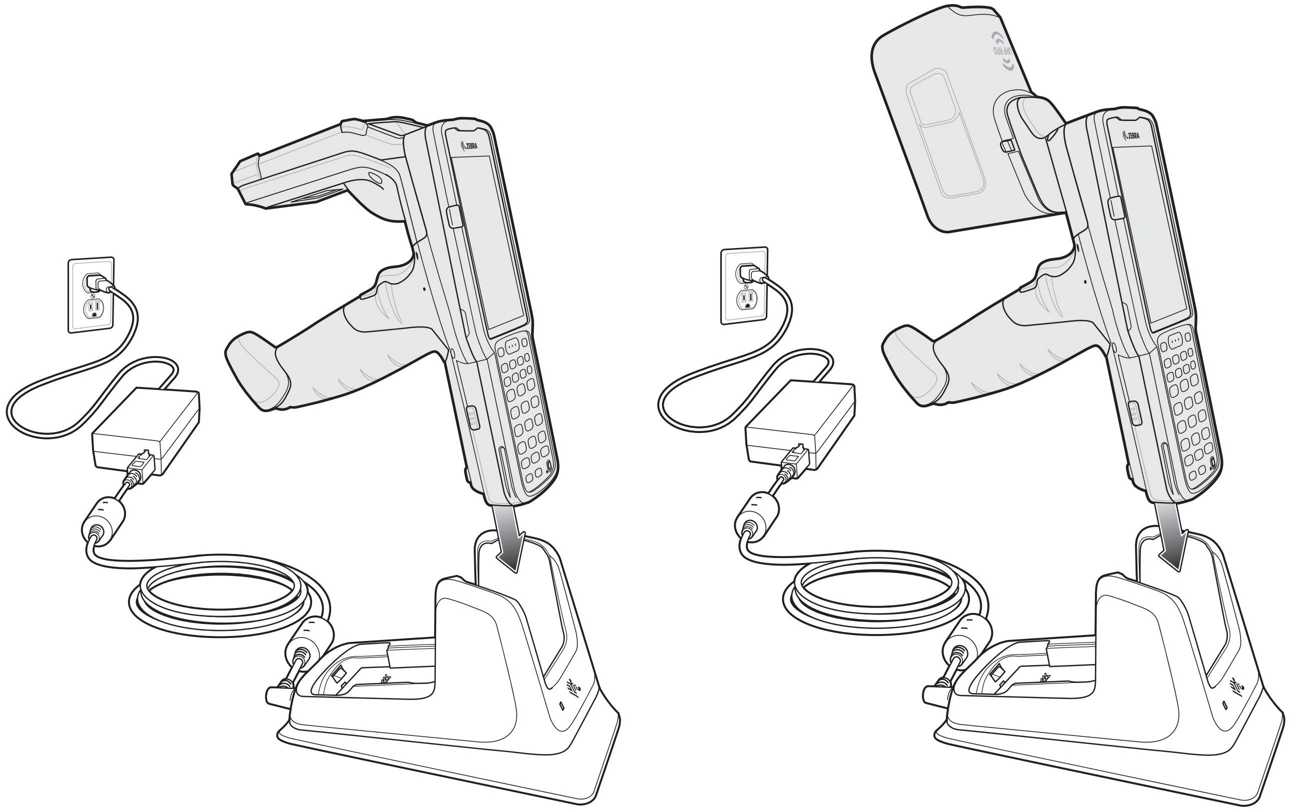


Charging the MC3300R Battery

NOTE: To function properly, remove the lower part of the rubber boot or the entire rubber boot before placing in a charging cradle.

1. Ensure that the cradle is connected to power.
2. Slide the mobile computer into the slot in the cradle. The mobile computer Charge LED Indicator, indicates the mobile computer battery charging status. For charging status, see Table 6 on page 24

Figure 4 MC3300R Battery Charging

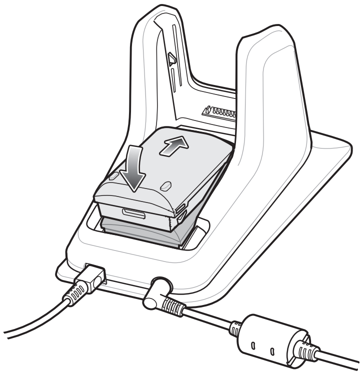


3. Gently press down on the device to ensure proper contact.
4. When charging is complete, remove the mobile computer from the cradle slot.

Charging an MC3300R Spare Battery

1. Ensure that the cradle is connected to power.
2. Insert the spare battery into the cradle, bottom first, and pivot the top of the battery down onto the contact pins.

Figure 5 MC3300R Spare Battery Charging



3. Gently press down on the battery to ensure proper contact.

   The Spare Battery Charging LED on the front of the cradle indicates the spare battery charging status.
4. When charging is complete, lift the battery out of the slot.

Battery Charging in 1- Slot USB Charge Cradle

The 1-Slot USB charge cradle charges the MC3300R's main battery and a spare battery simultaneously.

The MC3300R's Charge LED indicates the status of the battery charging in the MC3300R. See Table 6 for charging status indications.

The spare battery charging LED on the cradle indicates the status of the spare battery charging in the cradle. See below for charging status indications.

Table 6 Spare Battery LED Charging Indicators

Spare Battery LED (on cradle)	Indication
Off	• The battery is not charging. • The battery is not inserted correctly in the cradle or connected to a power source. • Cradle is not powered.
Solid Amber	• Battery is charging.
Solid Green	• Battery charging is complete.
Fast Blinking Red 2 blinks/second	Charging error, e.g.: • Temperature is too low or too high. • Charging has gone on too long without completion (typically eight hours).
Solid Red	• Spare battery is charging and battery is at the end of useful life. • Charging complete and battery is at the end of useful life.

The MC3300R 5200 mAh PowerPrecision+ extended battery charges from 0% to 90% in less than 3.8 hours at room temperature.

The MC32N0 5200 mAh PowerPrecision extended battery charges from 0% to 90% in less than 5.5 hours at room temperature.

Charging Temperature

Charge batteries in temperatures from 0 °C to 40 °C (32 °F to 104 °F). Charging is intelligently controlled by the MC3300R.

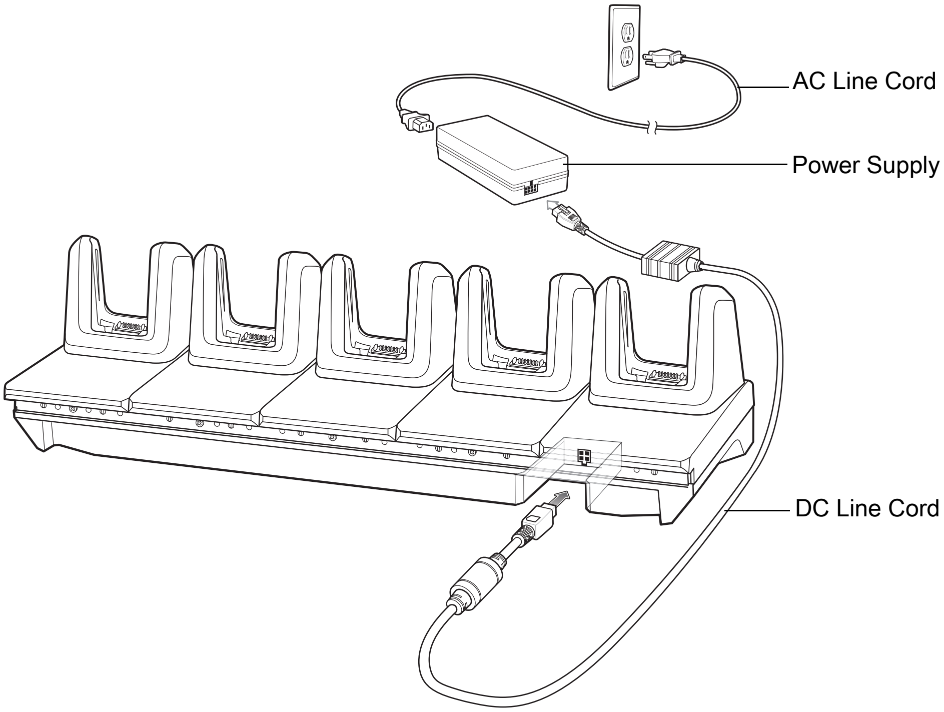
To accomplish this, for small periods of time, the MC3300R or cradle alternately enables and disables battery charging to keep the battery at acceptable temperatures. The MC3300R or cradle indicates when charging is disabled due to abnormal temperatures via its LED.

5-Slot Charge Only ShareCradle

The 5-Slot Charge Only ShareCradle:

- Provides 9 VDC power for operating the mobile computer and charging the battery.
- Simultaneously charges up to five mobile computers.
- Compatible with devices using the following batteries:
  - MC3300R 5200 mAh PowerPrecision+ extended battery.
  - MC32N0 5200 mAh PowerPrecision extended battery.

Figure 6 5-Slot Charge Only ShareCradle Setup



Charging the MC3300R Battery

NOTE: To function properly, remove the lower part of the rubber boot or the entire rubber boot before placing in a charging cradle.

1. Ensure that the cradle is connected to power.
2. Slide the mobile computer into the slot in the cradle. The mobile computer Charge LED Indicator, indicates the mobile computer battery charging status.
3. Gently press down on the device to ensure proper contact.
4. When charging is complete, remove the mobile computer from the cradle slot.

Battery Charging in the 5-Slot Charge Only ShareCradle

The MC3300R's Charge LED indicates the status of the battery charging in the MC3300R. See Table 10 on page 43 for charging status indications.

The MC3300R 5200 mAh PowerPrecision+ extended battery charges from 0% to 90% in less than 3.8 hours at room temperature.

The MC32N0 5200 mAh PowerPrecision extended battery charges from 0% to 90% in less than 5.5 hours at room temperature.

Charging Temperature

Charge batteries in temperatures from 0 °C to 40 °C (32 °F to 104 °F). Charging is intelligently controlled by the MC3300R.

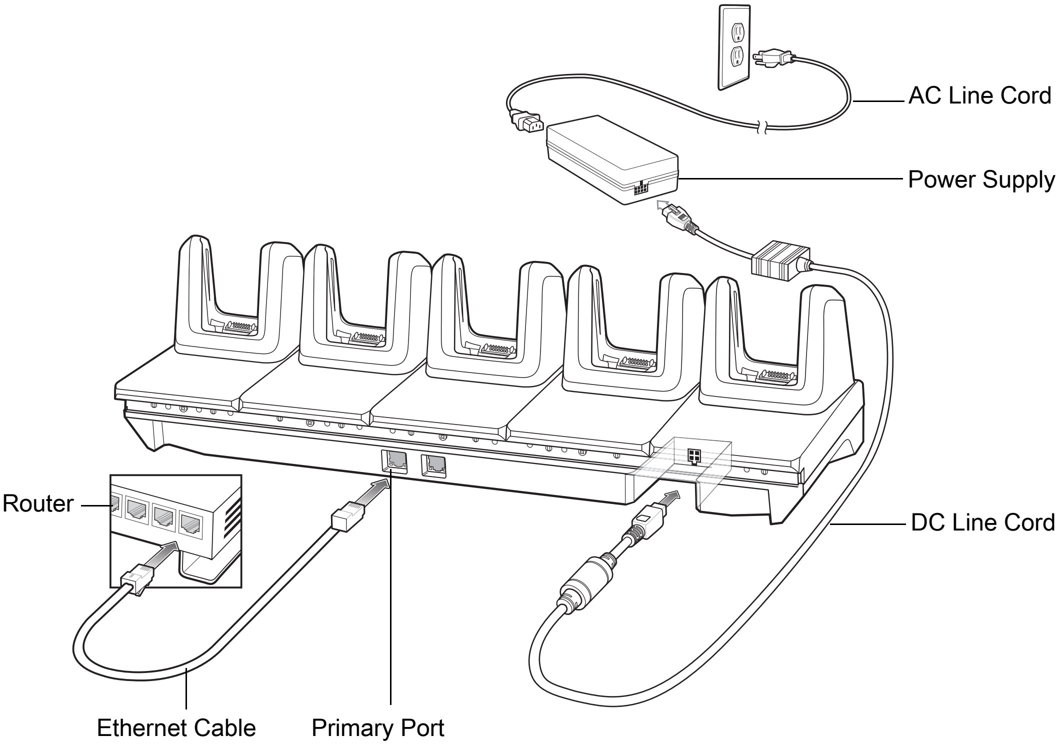
To accomplish this, for small periods of time, the MC3300R or cradle alternately enables and disables battery charging to keep the battery at acceptable temperatures. The MC3300R or cradle indicates when charging is disabled due to abnormal temperatures via its LED.

5-Slot Ethernet ShareCradle

The 5-Slot Ethernet ShareCradle:

- Provides 9 VDC power for operating the mobile computer and charging the battery.
- Simultaneously charges up to five mobile computers.
- Compatible with devices using the following batteries:
    - MC3300R 5200 mAh PowerPrecision+ extended battery.
    - MC32N0 5200 mAh PowerPrecision extended battery.

Figure 7 5-Slot Ethernet ShareCradle Setup



Charging the MC3300R Battery

NOTE: To function properly, remove the lower part of the rubber boot or the entire rubber boot before placing in a charging cradle.

1. Ensure that the cradle is connected to power.
2. Slide the mobile computer into the slot in the cradle. The mobile computer amber Charge LED Indicator, indicates the mobile computer battery charging status.
3. Gently press down on the device to ensure proper contact.
4. When charging is complete, remove the mobile computer from the cradle slot.

Battery Charging in the 5-Slot Ethernet ShareCradle

The MC3300R's Charge LED indicates the status of the battery charging in the MC3300R. See Table 10 on page 43 for charging status indications.

The MC3300R 5200 mAh PowerPrecision+ extended battery charges from 0% to 90% in less than 3.8 hours at room temperature.

The MC32N0 5200 mAh PowerPrecision extended battery charges from 0% to 90% in less than 5.5 hours at room temperature.

Charging Temperature

Charge batteries in temperatures from 0 °C to 40 °C (32 °F to 104 °F). Charging is intelligently controlled by the MC3300R.

To accomplish this, for small periods of time, the MC3300R or cradle alternately enables and disables battery charging to keep the battery at acceptable temperatures. The MC3300R or cradle indicates when charging is disabled due to abnormal temperatures via its LED.

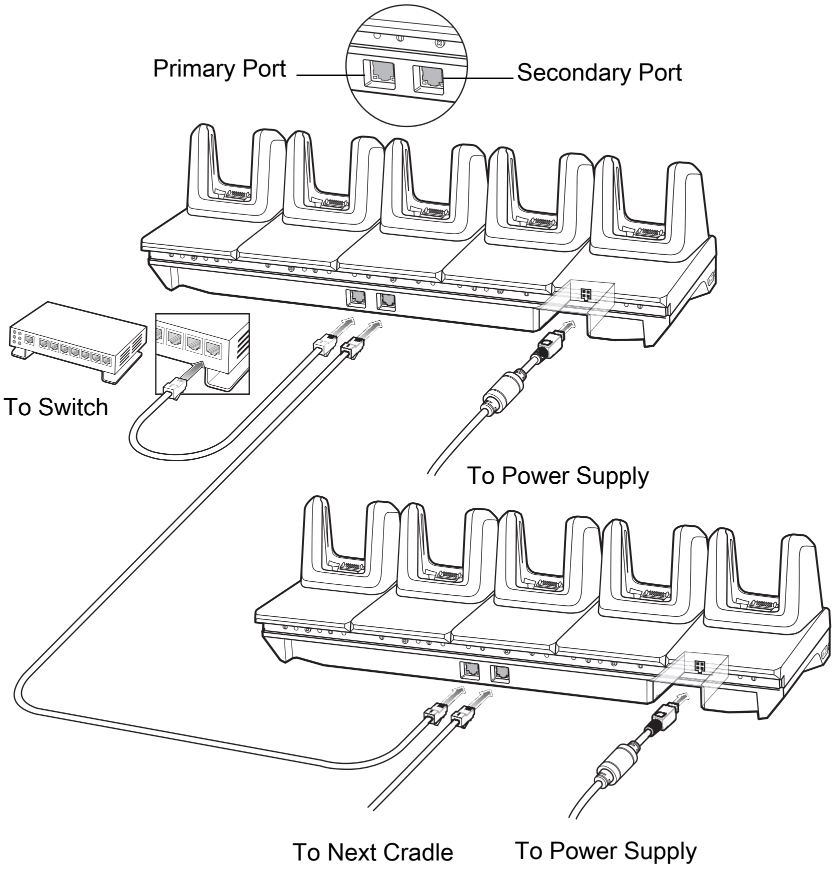
Daisy-chaining Ethernet ShareCradles

Daisy-chain up to ten 5-Slot Ethernet ShareCradles to connect several cradles to an Ethernet network. Use either a straight or crossover cable. Daisy-chaining should not be attempted when the main Ethernet connection to the first cradle is 10 Mbps or throughput issues are likely to occur.

To daisy-chain 5-Slot Ethernet ShareCradles:

1. Connect power to each 5-Slot Ethernet ShareCradle.
2. Connect an Ethernet cable to one of the ports on the switch and the other end to the Primary Port of the first cradle.
3. Connect an Ethernet cable to the Secondary port of the first cradle.
4. Connect the other end of the Ethernet cable to the Primary port of the next 5-Slot Ethernet ShareCradle.

Figure 8 Daisy-chaining 5-Slot Ethernet ShareCradles


Primary Port
Secondary Port
To Switch
To Power Supply
To Next Cradle
To Power Supply

5. Connect additional cradles as described in step 3 and 4.

Ethernet Settings

The following settings can be configured when using Ethernet communication:

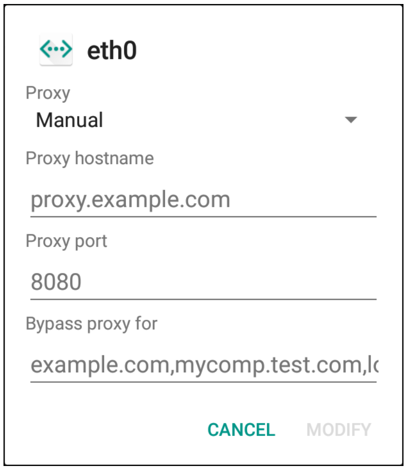
- Proxy Settings
- Static IP.

Configuring Ethernet Proxy Settings

The MC3300R includes Ethernet cradle drivers. After inserting the MC3300R, configure the Ethernet connection:

1. Swipe down from the status bar to open the quick access panel and then touch ⚙.
2. Touch ‹··› **Ethernet**.
3. Slide the switch to the **ON** position.
4. Place the MC3300R into the Ethernet cradle slot.
5. Touch and hold **eth0** until the menu appears.
6. Touch **Modify Proxy**.
7. Touch the **Proxy** drop-down list and select **Manual**.

Figure 9 Ethernet Proxy Settings



eth0

Proxy
Manual

Proxy hostname
proxy.example.com

Proxy port
8080

Bypass proxy for
example.com,mycomp.test.com,lc

8. In the **Proxy hostname** field, enter the proxy server address.
9. In the **Proxy port** field, enter the proxy server port number.

NOTE: When entering proxy addresses in the Bypass proxy for field, do not use spaces or carriage returns between addresses.

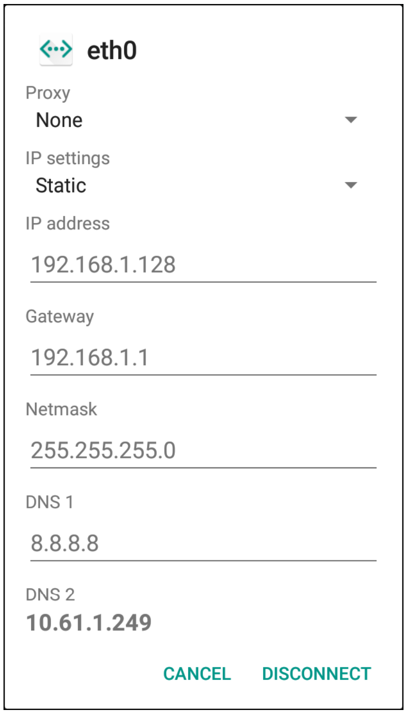
10. In the **Bypass proxy for** text box, enter addresses for web sites that do not require to go through the proxy server. Use the separator "|" between addresses.
11. Touch **MODIFY**.
12. Touch ○ .

Configuring Ethernet Static IP Address

The MC3300R includes Ethernet cradle drivers. After inserting the MC3300R, configure the Ethernet connection:

1. Swipe down from the status bar to open the quick access panel and then touch ⚙.
2. Touch <···> **Ethernet**.
3. Slide the switch to the **ON** position.
4. Place the MC3300R into the Ethernet cradle slot.
5. Touch **eth0**.
6. Touch **Disconnect**.
7. Touch **eth0**.
8. Touch the IP settings drop-down list and select **Static**.

Figure 10 Static IP Settings



eth0

Proxy
None

IP settings
Static

IP address
192.168.1.128

Gateway
192.168.1.1

Netmask
255.255.255.0

DNS 1
8.8.8.8

DNS 2
10.61.1.249

9. In the **IP** address field, enter the proxy server address.
10. If required, in the **Gateway** field, enter a gateway address for the device.
11. If required, in the **Netmask** field, enter the network mask address
12. If required, in the **DNS** address fields, enter a Domain Name System (DNS) addresses.
13. Touch **CONNECT**.
14. Touch ○.

Establishing Ethernet Connection

1. Swipe down from the status bar to open the quick access panel and then touch ⚙.
2. Touch **Ethernet**.
3. Slide the Ethernet switch to the **ON** position.
4. Insert the device into a slot.

   The <··> icon appears in the Status bar.
5. Touch **eth0** to view Ethernet connection details.

LED Indicators

There are two green LEDs on the side of the cradle. These green LEDs light and blink to indicate the data transfer rate.

Table 7 LED Data Rate Indicators

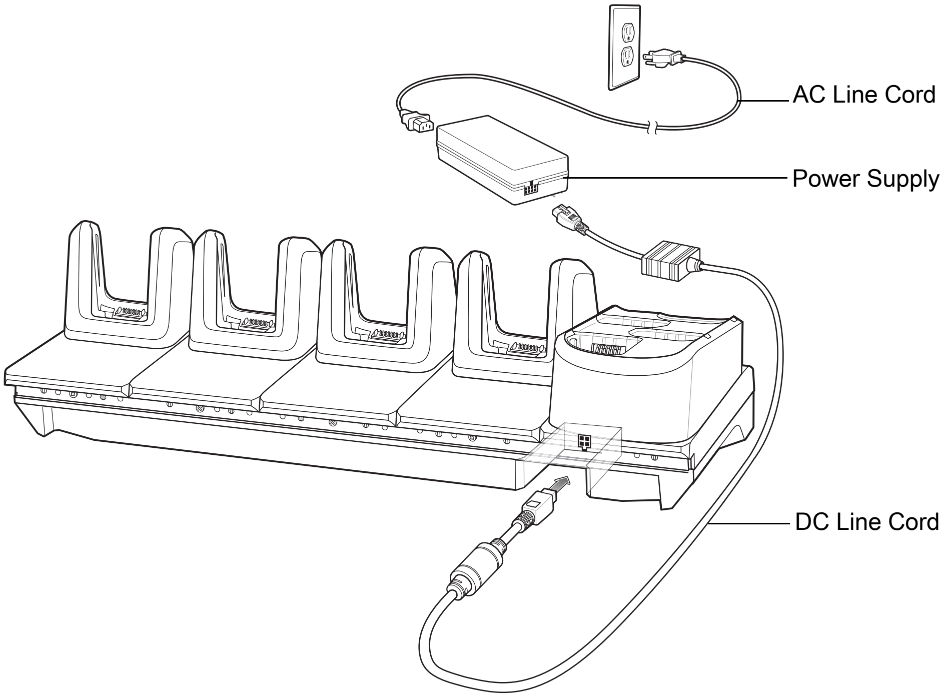
Data Rate	1000 LED	100/10 LED
1 Gbps	On/Blink	Off
100 Mbps	Off	On/Blink
10 Mbps	Off	On/Blink

4-Slot ShareCradle with 4-Slot Battery Charger

The 4-Slot ShareCradle with 4-Slot Battery Charger:

- Provides 9 VDC power for operating the mobile computer and charging the battery.
- Provides 4.2 VDC power for charging spare batteries.
- Simultaneously charges up to four mobile computers and four spare batteries.
- Compatible with the following batteries:
  - MC3300R 5200 mAh PowerPrecision+ extended battery.
  - MC32N0 5200 mAh PowerPrecision extended battery.

Figure 11 4-Slot ShareCradle with 4-Slot Battery Charger Setup



Charging the MC3300R Battery

NOTE: To function properly, remove the lower part of the rubber boot or the entire rubber boot before placing in a charging cradle.

1. Ensure that the cradle is connected to power.
2. Slide the mobile computer into the slot in the cradle. The mobile computer amber Charge LED Indicator, indicates the mobile computer battery charging status.
3. Gently press down on the device to ensure proper contact.
4. When charging is complete, remove the mobile computer from the cradle slot.

Charging Spare Batteries

Insert the battery into the charger and gently press down on the battery to ensure proper contact.

Battery Charging in the 4-Slot ShareCradle with 4-Slot Battery Charger

The MC3300R's Charge LED or the spare battery LED indicates the status of the battery charging in the MC3300R. See Table 9 on page 41 for charging status indications.

The MC3300R 5200 mAh PowerPrecision+ extended battery charges from 0% to 90% in less than 3.8 hours at room temperature.

The MC32N0 5200 mAh PowerPrecision extended battery charges from 0% to 90% in less than 5.5 hours at room temperature.

Charging Temperature

Charge batteries in temperatures from 0 °C to 40 °C (32 °F to 104 °F). Charging is intelligently controlled by the MC3300R.

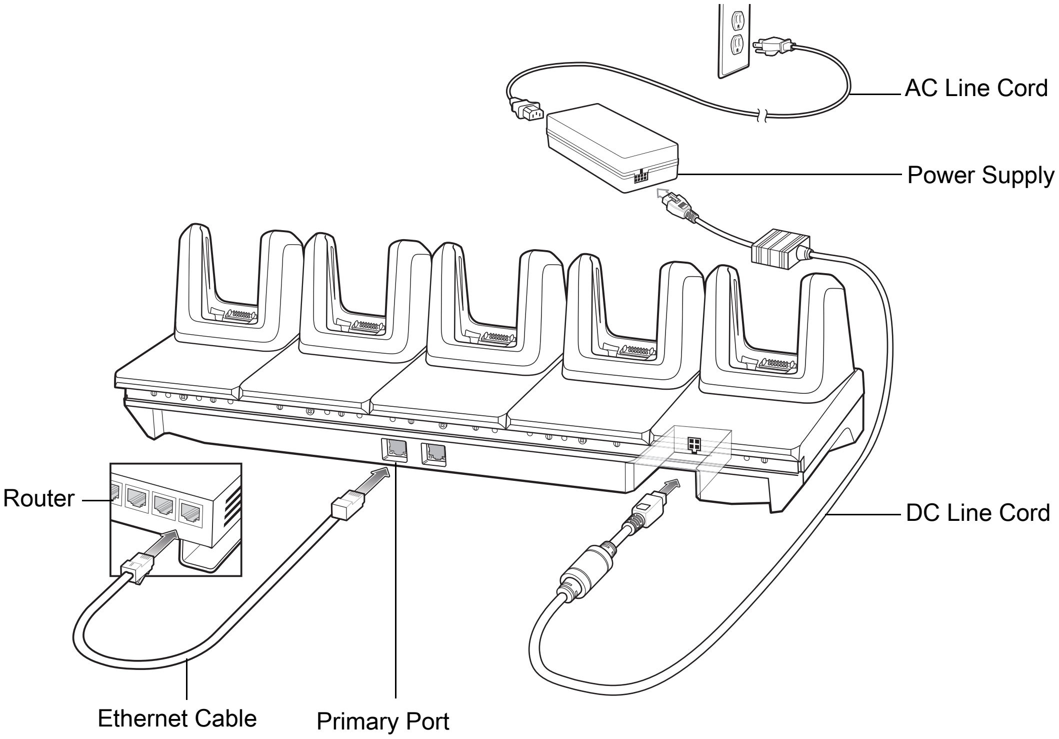
To accomplish this, for small periods of time, the MC3300R or cradle alternately enables and disables battery charging to keep the battery at acceptable temperatures. The MC3300R or cradle indicates when charging is disabled due to abnormal temperatures via its LED.

4-Slot Ethernet ShareCradle with 4-Slot Battery Charger

The 4-Slot Ethernet ShareCradle with 4-Slot Battery Charger:

- Provides 9 VDC power for operating the mobile computer and charging the battery.
- Provides 4.2 VDC power for charging spare batteries.
- Simultaneously charges up to four mobile computers and four spare batteries.
- Compatible with the following batteries:
  - MC3300R 5200 mAh PowerPrecision+ extended battery.
  - MC32N0 5200 mAh PowerPrecision extended battery.

Figure 12 4-Slot Ethernet ShareCradle with 4-Slot Battery Charger Setup



Charging the MC3300R Battery

NOTE: To function properly, remove the lower part of the rubber boot or the entire rubber boot before placing in a charging cradle.

1. Ensure that the cradle is connected to power.
2. Slide the mobile computer into the slot in the cradle. The mobile computer amber Charge LED Indicator, indicates the mobile computer battery charging status.
3. Gently press down on the device to ensure proper contact.
4. When charging is complete, remove the mobile computer from the cradle slot.

Charging Spare Batteries

Insert the battery into the charger and gently press down on the battery to ensure proper contact.

Battery Charging in the 4-Slot Ethernet ShareCradle with 4-Slot Battery Charger

The MC3300R's Charge LED or the spare battery LED indicates the status of the battery charging in the MC3300R. See Table 9 on page 41 for charging status indications.

The MC3300R 5200 mAh PowerPrecision+ extended battery charges from 0% to 90% in less than 3.8 hours at room temperature.

The MC32N0 5200 mAh PowerPrecision extended battery charges from 0% to 90% in less than 5.5 hours at room temperature.

Charging Temperature

Charge batteries in temperatures from 0 °C to 40 °C (32 °F to 104 °F). Charging is intelligently controlled by the MC3300R.

To accomplish this, for small periods of time, the MC3300R or cradle alternately enables and disables battery charging to keep the battery at acceptable temperatures. The MC3300R or cradle indicates when charging is disabled due to abnormal temperatures via its LED.

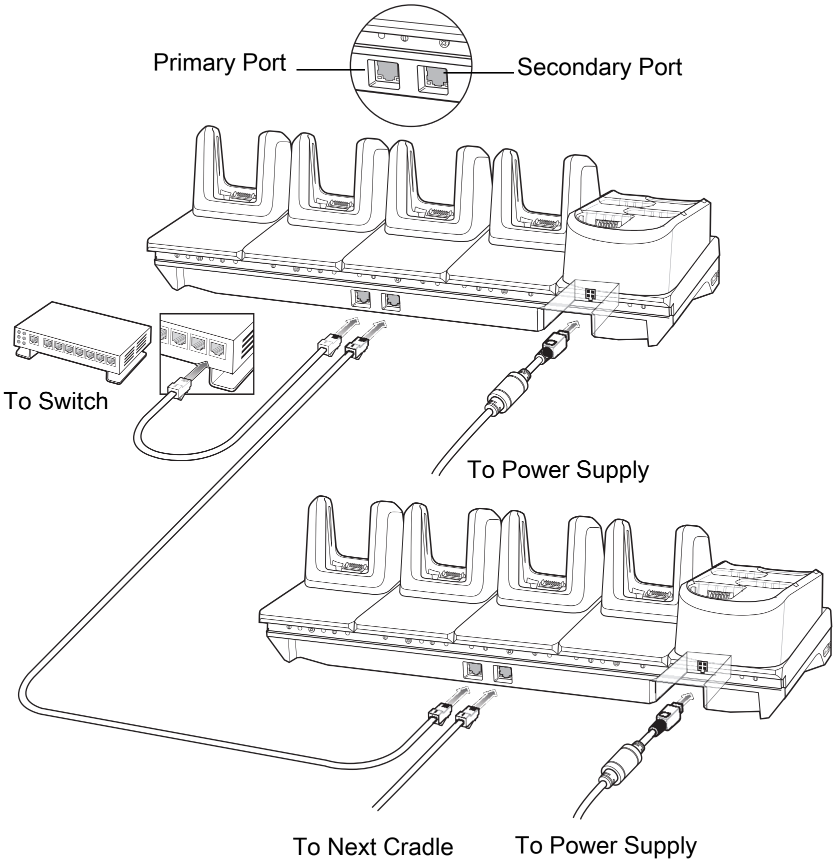
Daisy-chaining Ethernet Cradles

Daisy-chain up to ten 5-Slot Ethernet ShareCradle with 4-Slot Battery Chargers to connect several cradles to an Ethernet network. Use either a straight or crossover cable. Daisy-chaining should not be attempted when the main Ethernet connection to the first cradle is 10 Mbps as throughput issues are likely to occur.

To daisy-chain 5-Slot Ethernet ShareCradle with 4-Slot Battery Chargers:

1. Connect power to each 5-Slot Ethernet ShareCradle with 4-Slot Battery Charger.
2. Connect an Ethernet cable to one of the ports on the switch and the other end to the Primary Port of the first cradle.
3. Connect an Ethernet cable to the Secondary port of the first cradle.
4. Connect the other end of the Ethernet cable to the Primary port of the next 5-Slot Ethernet ShareCradle with 4-Slot Battery Charger.

Figure 13 Daisy-chaining 5-Slot Ethernet ShareCradle with 4-Slot Battery Chargers


Primary Port
Secondary Port
To Switch
To Power Supply
To Next Cradle
To Power Supply

5. Connect additional cradles as described in step 3 and 4.

Ethernet Settings

The following settings can be configured when using Ethernet communication:

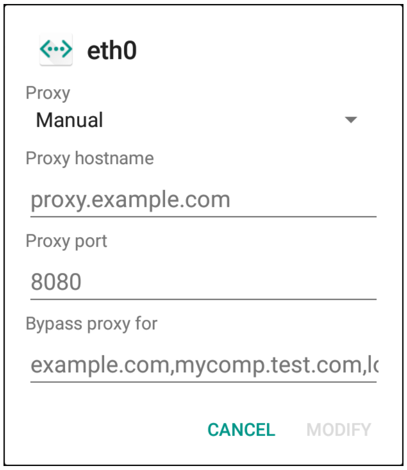
- Proxy Settings
- Static IP.

Configuring Ethernet Proxy Settings

The MC3300R includes Ethernet cradle drivers. After inserting the MC3300R, configure the Ethernet connection:

1. Swipe down from the status bar to open the quick access panel and then touch ⚙.
2. Touch <···> **Ethernet**.
3. Slide the switch to the **ON** position.
4. Place the MC3300R into the Ethernet cradle slot.
5. Touch and hold **eth0** until the menu appears.
6. Touch **Modify Proxy**.
7. Touch the **Proxy** drop-down list and select **Manual**.

Figure 14 Ethernet Proxy Settings



eth0

Proxy: Manual

Proxy hostname: proxy.example.com

Proxy port: 8080

Bypass proxy for: example.com,mycomp.test.com,l

8. In the **Proxy hostname** field, enter the proxy server address.
9. In the **Proxy port** field, enter the proxy server port number.

NOTE: When entering proxy addresses in the Bypass proxy for field, do not use spaces or carriage returns between addresses.

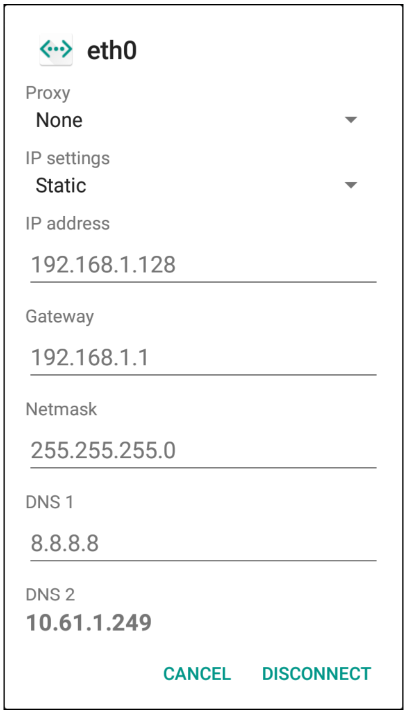
10. In the **Bypass proxy for** text box, enter addresses for web sites that do not require to go through the proxy server. Use the separator "|" between addresses.
11. Touch **MODIFY**.
12. Touch ○.

Configuring Ethernet Static IP Address

The MC3300R includes Ethernet cradle drivers. After inserting the MC3300R, configure the Ethernet connection:

1. Swipe down from the status bar to open the quick access panel and then touch ⚙.
2. Touch <···> **Ethernet**.
3. Slide the switch to the **ON** position.
4. Place the MC3300R into the Ethernet cradle slot.
5. Touch **eth0**.
6. Touch **Disconnect**.
7. Touch **eth0**.
8. Touch the IP settings drop-down list and select **Static**.

Figure 15 Static IP Settings



eth0

Proxy
None

IP settings
Static

IP address
192.168.1.128

Gateway
192.168.1.1

Netmask
255.255.255.0

DNS 1
8.8.8.8

DNS 2
10.61.1.249

9. In the **IP** address field, enter the proxy server address.
10. If required, in the **Gateway** field, enter a gateway address for the device.
11. If required, in the **Netmask** field, enter the network mask address
12. If required, in the **DNS** address fields, enter a Domain Name System (DNS) addresses.
13. Touch **CONNECT**.
14. Touch ○.

Establishing Ethernet Connection

1. Swipe down from the status bar to open the quick access panel and then touch ⚙.
2. Touch **Ethernet**.
3. Slide the Ethernet switch to the **ON** position.
4. Insert the device into a slot.

   The <··> icon appears in the Status bar.
5. Touch **eth0** to view Ethernet connection details.

LED Indicators

There are two green LEDs on the side of the cradle. These green LEDs light and blink to indicate the data transfer rate.

Table 8 LED Data Rate Indicators

Data Rate	1000 LED	100/10 LED
1 Gbps	On/Blink	Off
100 Mbps	Off	On/Blink
10 Mbps	Off	On/Blink

4-Slot Spare Battery Charger

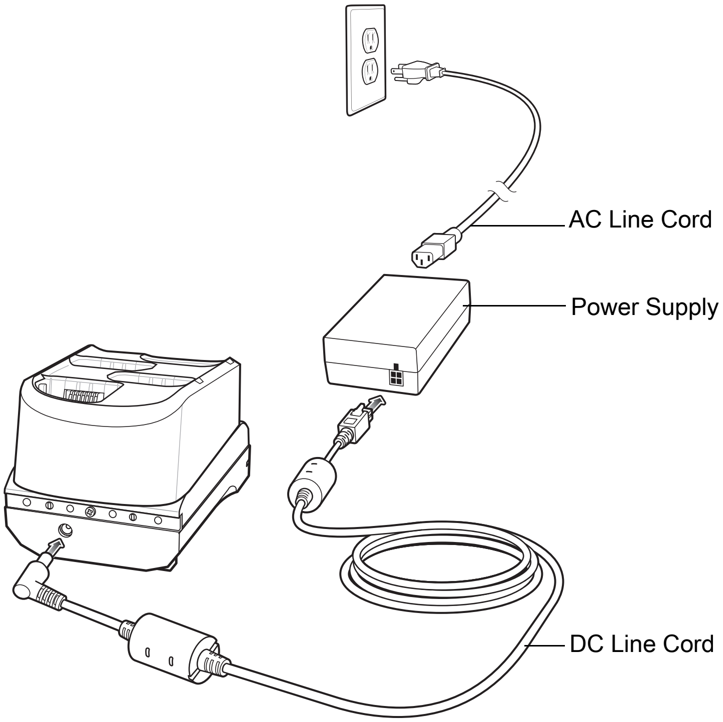
The 4-Slot Battery Charger:

- Charges up to four MC3300R spare batteries.
- Provides 4.2 VDC power to charge the spare battery.
- Compatible with the following batteries:
  - MC3300R 5200 mAh PowerPrecision+ extended battery.
  - MC32N0 5200 mAh PowerPrecision extended battery.

Charging Spare Batteries

1. Connect the charger to a power source.
2. Insert the battery into the charger and gently press down on the battery to ensure proper contact.

Figure 16 4-Slot Battery Charger Setup



Battery Charging

Spare Battery Charging

Each Battery Charging LED indicates the status of the battery charging in each slot. The table below describes the Battery Charging LED status.

Table 9 Battery LED Charging Indicators

LED	Indication
Off	• The battery is not charging. • The battery is not inserted correctly in the cradle or connected to a power source. • Cradle is not powered.
Solid Amber	• Battery is charging.
Solid Green	• Battery charging is complete.
Fast Blinking Red 2 blinks/second	Charging error, e.g.: • Temperature is too low or too high. • Charging has gone on too long without completion (typically eight hours).
Solid Red	• Spare battery is charging and battery is at the end of useful life. • Charging complete and battery is at the end of useful life.

The MC3300R 5200 mAh PowerPrecision+ extended battery charges from 0% to 90% in less than 3.8 hours at room temperature.

The MC32N0 5200 mAh PowerPrecision extended battery charges from 0% to 90% in less than 5.5 hours at room temperature.

Charging Temperature

Charge batteries in temperatures from 0 °C to 40 °C (32 °F to 104 °F). Charging is intelligently controlled by the MC3300R.

To accomplish this, for small periods of time, the changer alternately enables and disables battery charging to keep the battery at acceptable temperatures. The charger indicates when charging is disabled due to abnormal temperatures via its LED.

20-Slot Spare Battery Charger

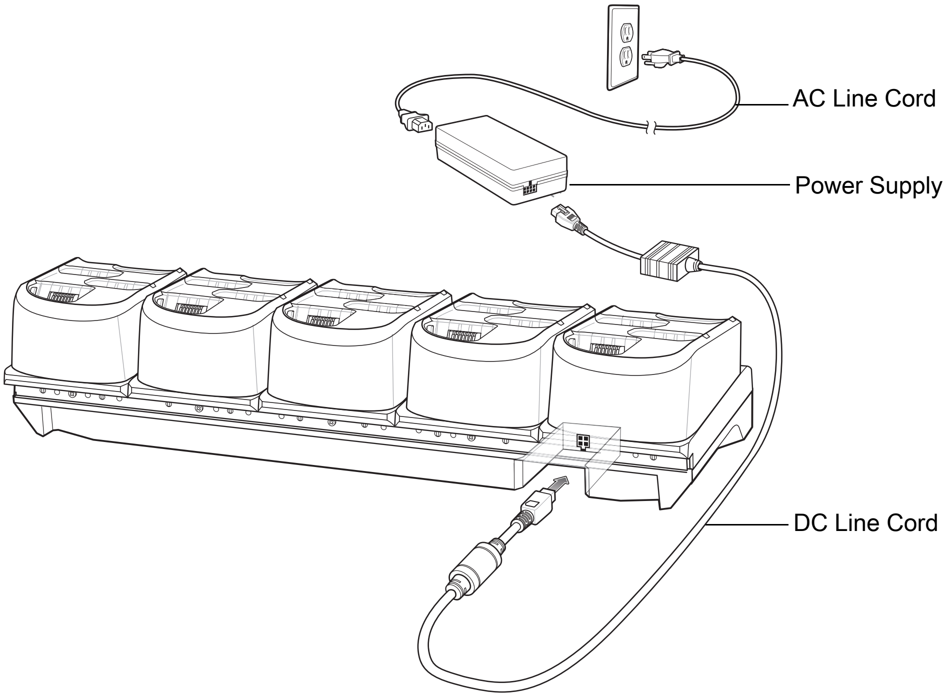
The 20-Slot Battery Charger:

- Charges up to twenty MC3300R spare batteries.
- Provides 4.2 VDC power to charge the spare battery.
- Compatible with the following batteries:
  - MC3300R 5200 mAh PowerPrecision+ extended battery.
  - MC32N0 5200 mAh PowerPrecision extended battery.

Charging Spare Batteries

1. Connect the charger to a power source.
2. Insert the battery into the charger and gently press down on the battery to ensure proper contact.

Figure 17 20-Slot Battery Charger Setup



Battery Charging

Spare Battery Charging

Each Battery Charging LED indicates the status of the battery charging in each slot. The table below describes the Battery Charging LED status.

Table 10 20-Slot Battery LED Charging Indicators

LED	Indication
Off	• The battery is not charging. • The battery is not inserted correctly in the cradle or connected to a power source. • Cradle is not powered.
Solid Amber	• Battery is charging.
Solid Green	• Battery charging is complete.
Fast Blinking Red 2 blinks/second	Charging error, e.g.: • Temperature is too low or too high. • Charging has gone on too long without completion (typically eight hours).
Solid Red	• Spare battery is charging and battery is at the end of useful life. • Charging complete and battery is at the end of useful life.

The MC3300R 5200 mAh PowerPrecision+ extended battery charges from 0% to 90% in less than 5.5 hours at room temperature.

The MC32N0 5200 mAh PowerPrecision extended battery charges from 0% to 90% in less than 5.5 hours at room temperature.

Charging Temperature

Charge batteries in temperatures from 0 °C to 40 °C (32 °F to 104 °F). Charging is intelligently controlled by the MC3300R.

To accomplish this, for small periods of time, the changer alternately enables and disables battery charging to keep the battery at acceptable temperatures. The charger indicates when charging is disabled due to abnormal temperatures via its LED.

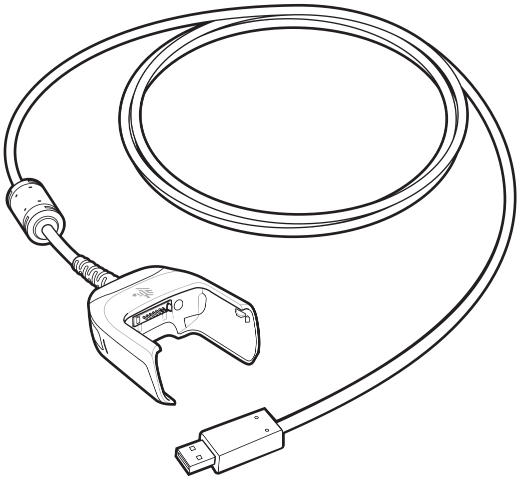
USB Charge Cable

The USB Charge Cable:

- Provides 5 VDC power to charge the battery.
- Provides power and/or communication with the host computer over USB to the device.
- Compatible with devices using the following batteries:
  - MC3300R 5200 mAh PowerPrecision+ extended battery.
  - MC32N0 5200 mAh PowerPrecision extended battery.

The USB Charge Cable snaps onto the bottom of the MC3300R and removes easily when not in use. When attached to the MC3300R allows charging only.

Figure 18 USB Charge Cable

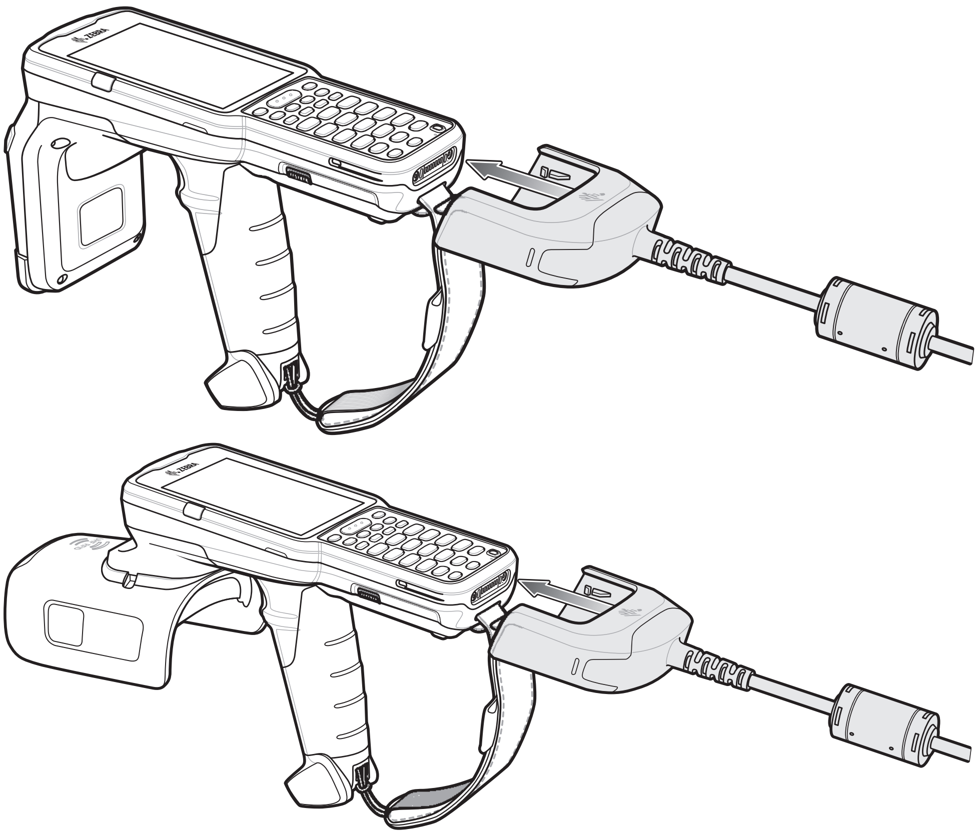


Connecting the USB Charge Cable to Device

NOTE: To function properly, remove the lower part of the rubber boot or the entire rubber boot before placing in a charging cradle.

To connect the USB Charge Cable to the device, insert the USB Charge Cable straight onto the device until the device touches the bottom of the cable cup.

Figure 19 Connecting the USB Charge Cable

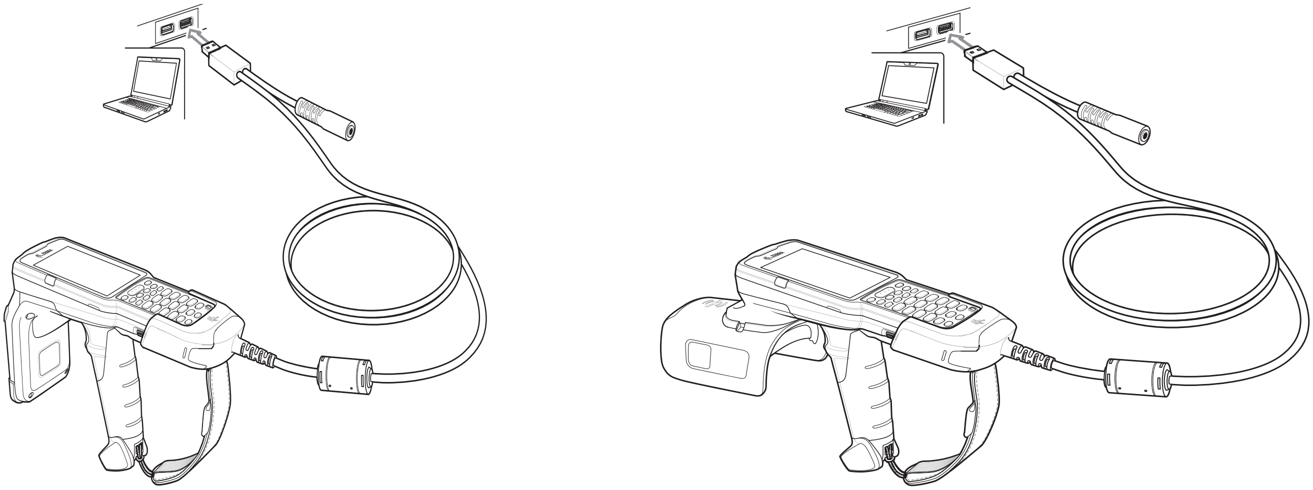


Connecting the USB Charge Cable to Host Computer

To connect the USB Charge Cable to a host computer:

1. Connect the USB Charge Cable to the MC3300R.
2. Connect the USB connector of the cable to a host computer.

Figure 20 Connecting USB Charge Cable to Host Computer



Main Battery Charging

The device’s Charging/Notification LED indicates the status of the battery charging in the device.

NOTE: Charging using a host computer USB port could take longer.

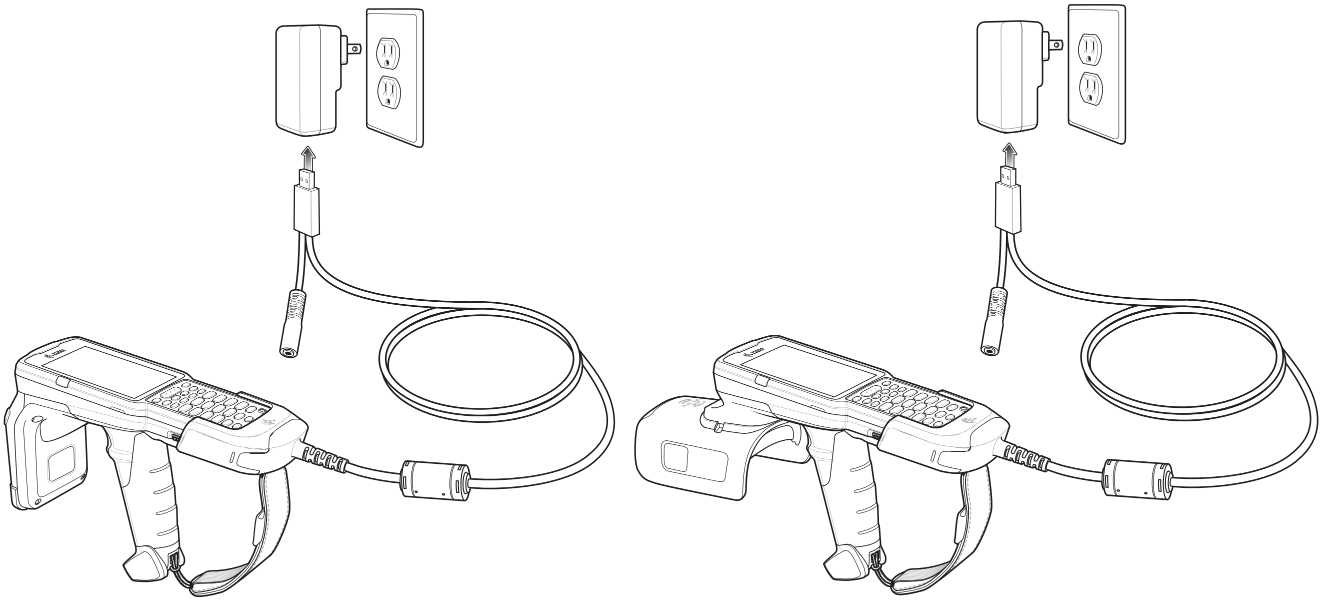
To achieve the best charging results use only Zebra charging accessories and batteries. Charge batteries at room temperature with the in sleep mode.

Charging the Device

To charge the device using the USB Charge Cable:

1. Connect the USB Charge Cable to the MC3300R.
2. Connect the USB connector of the power supply.
3. Plug the power supply into a power outlet.

Figure 21 Charging the Device



Main Battery Charging

The device’s Charging/Notification LED indicates the status of the battery charging in the device.

NOTE: In many cases the 90% charge provides plenty of charge for daily use.

To achieve the best charging results use only Zebra charging accessories and batteries. Charge batteries at room temperature with the MC3300R in sleep mode.

The MC3300R 5200 mAh PowerPrecision+ extended battery charges from 0% to 90% in less than 6 hours at room temperature.

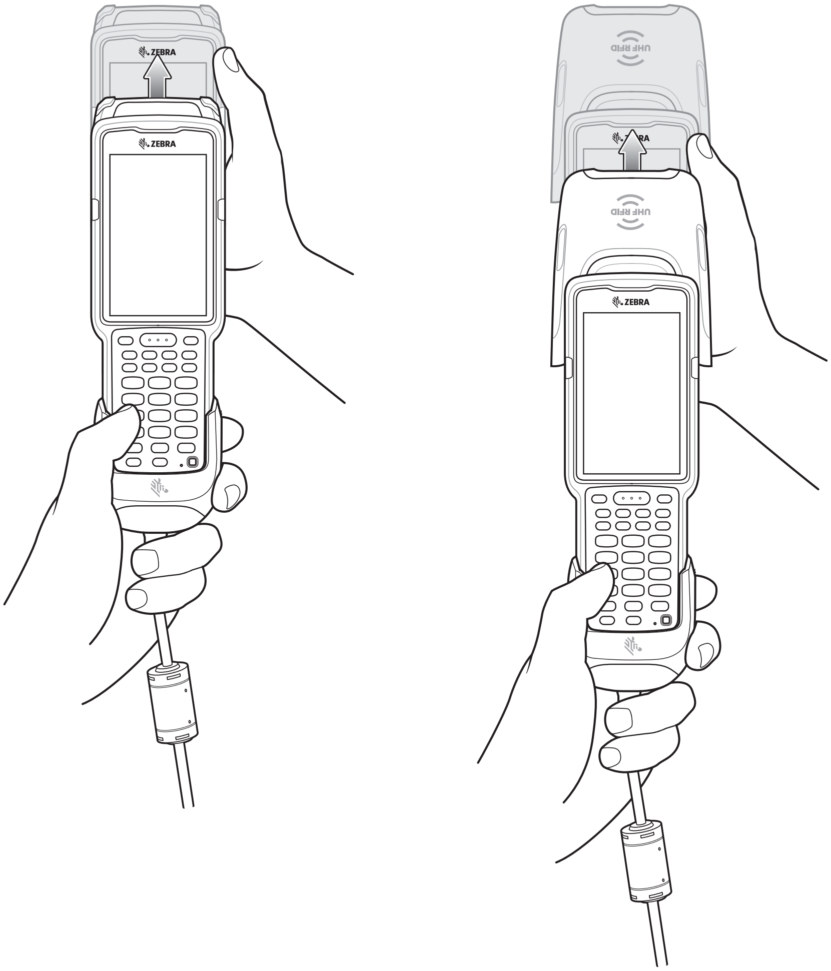
The MC32N0 5200 mAh PowerPrecision extended battery charges from 0% to 90% in less than 6 hours at room temperature.

Disconnecting the USB Charge Cable

To disconnect the USB Charge Cable from the MC3300R:

1. Grasp the cable cup in one hand (by pinching the front and back) and the device in the other hand.
2. Remove the device by pulling straight up.

Figure 22 Disconnecting the USB Charge Cable



MC33XX Charge Only Adapter

Use the MC33XX Charge Only Adapter for backwards compatibility with the MC32N0 cradles and the MC3300R mobile computer.

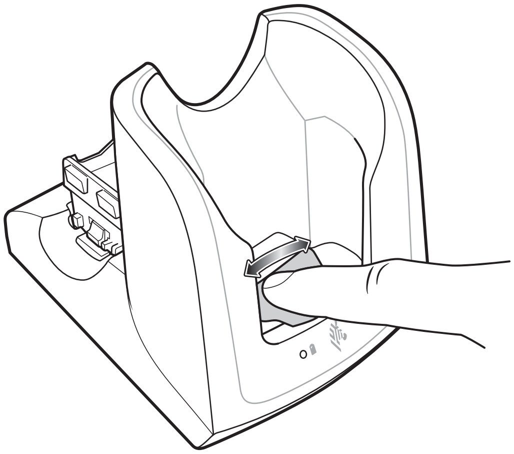
- MC33XX Charge Only Adapter supports the MC32N0 1-Slot USB Cradle, MC32N0 4-Slot Charge Only Cradle, and MC32N0 4-Slot Ethernet Cradle.
- MC33XX Charge Only Adapter provides charge only; no communication when used with the MC32N0 cradles.
- MC32N0 1-Slot USB Cradle provides 5.4V DC to charge the device.
- MC32N0 1-Slot USB Cradle (with the MC33XX Charge Only Adapter) is compatible with an MC3300R mobile computer charging either an MC3300R PowerPrecision+ extended battery or an MC32N0 PowerPrecision extended battery, but the MC32N0 1-Slot USB Cradle spare battery slot is only compatible with the MC32N0 PowerPrecision batteries.

Adapter Installation

To install the MC33XX Charge Only Adapter into the MC32N0 Cradle:

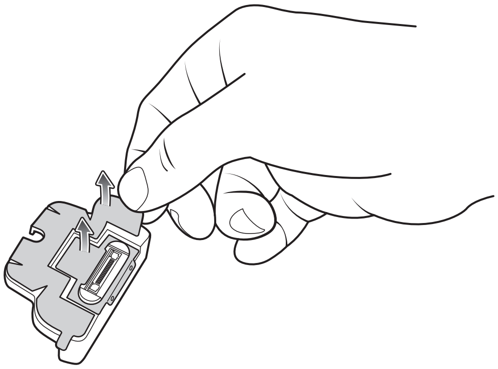
1. Clean the MC32N0 cradle and contacts with an alcohol wipe, using a back and forth motion with your finger. For more information about cleaning, see Troubleshooting.

Figure 23 Clean MC32N0 Cradle



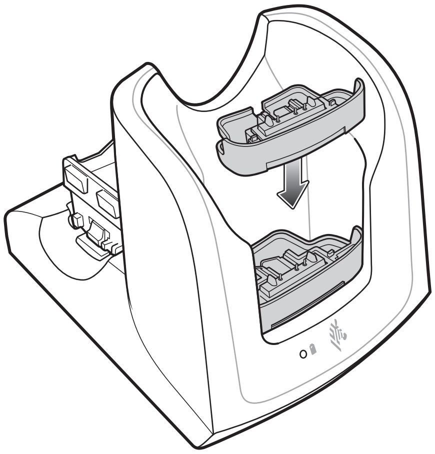
2. Peel and remove the adhesive from the back of the adapter.

Figure 24 Peel and Remove Adhesive



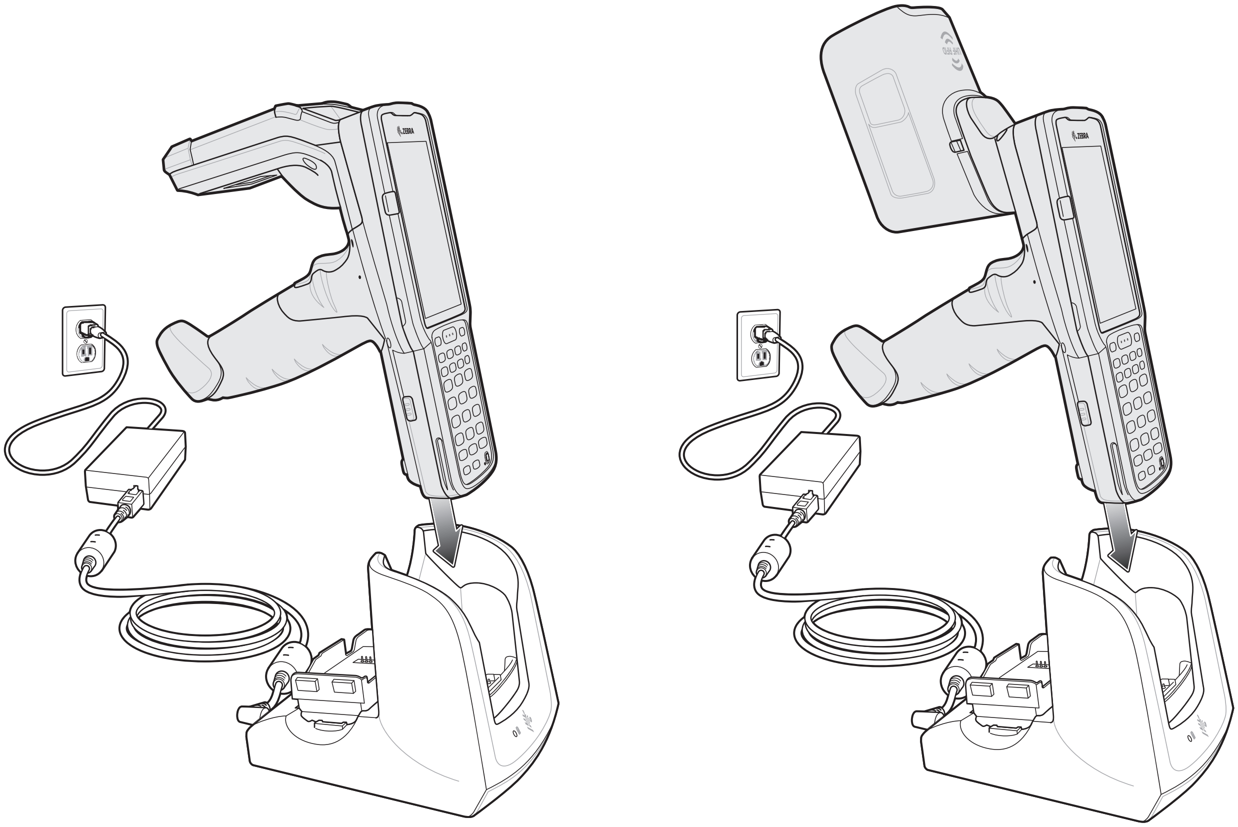
3. Insert the adapter into the MC32N0 cradle and adhere to the bottom of the cradle.

Figure 25 Insert Adapter into Cradle and Adhere



4. Insert the MC3300R device into the MC32N0 cradle.

Figure 26 Insert MC3300R device into MC32N0 Cradle



The MC3300R 5200 mAh PowerPrecision+ extended battery charges from 0% to 90% in less than 5.5 hours at room temperature.

The MC32N0 5200 mAh PowerPrecision extended battery charges from 0% to 90% in less than 5.5 hours at room temperature.

Charging Temperature

Charge batteries in temperatures from 0 °C to 40 °C (32 °F to 104 °F). Charging is intelligently controlled by the MC3300R.

To accomplish this, for small periods of time, the MC3300R or cradle alternately enables and disables battery charging to keep the battery at acceptable temperatures. The MC3300R or cradle indicates when charging is disabled due to abnormal temperatures via its LED.

MC3300R Rubber Boot

The rubber boot provides additional protection for the MC3300R.

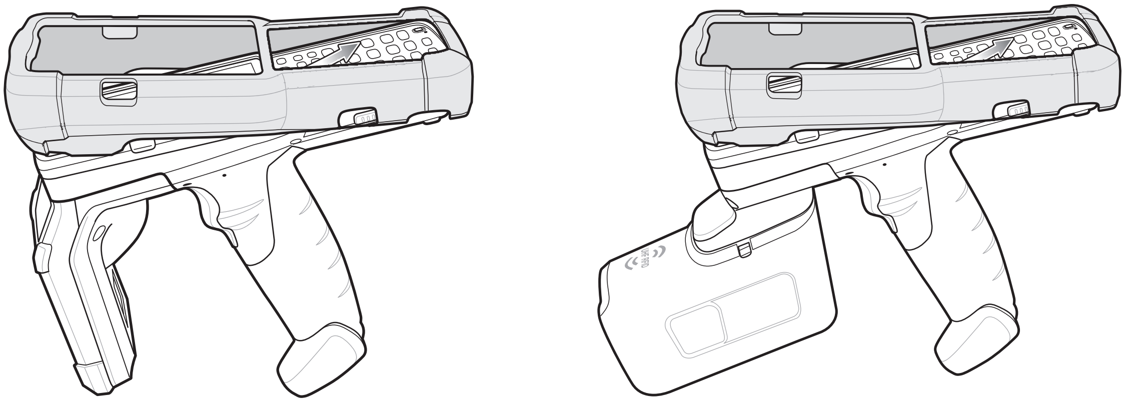
NOTE: To function properly, remove the lower part of the rubber boot or the entire rubber boot before placing in a charging cradle.

If the hand strap is attached, release the hand strap to install the rubber boot. After the rubber boot is installed, reattach the hand strap.

To attach the rubber boot:

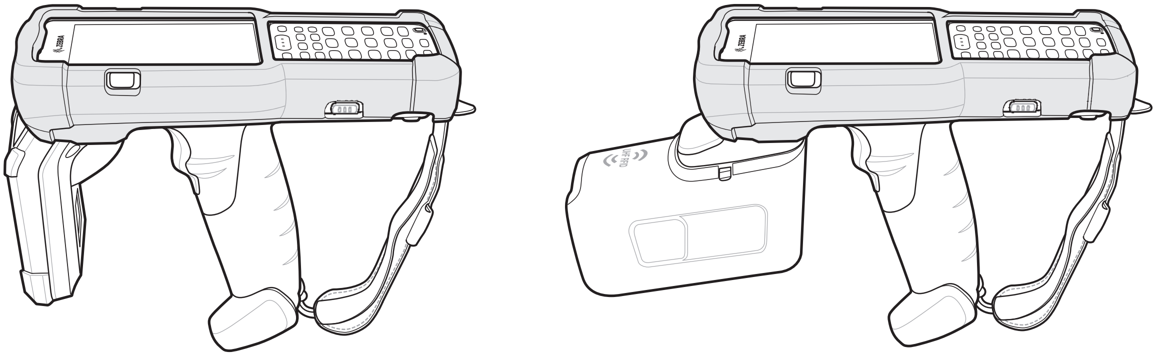
1. If the hand strap is attached, remove the hand strap.
2. Slide the battery end of the MC3300R into the bottom of the rubber boot.

Figure 27 Slide MC3300R into Bottom of Rubber Boot



3. Grasp the top of the rubber boot and place over the top of the MC3300R.
4. Re-attach the hand strap (see Hand Strap on page 56).

Figure 28 Place Rubber Boot Over Top of MC3300R



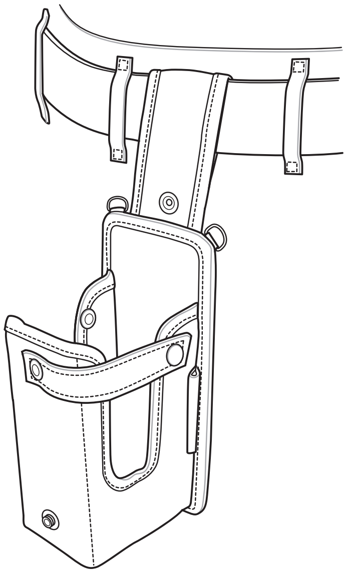
Fabric Holster

The Fabric Holster provides a soft holder for the mobile computer. It consists of a fabric mobile computer holder, a detachable shoulder strap and a belt strap See figures below to attach the Fabric Holster to a belt and shoulder strap.

Belt Strap

Attach the Fabric Holster to a belt or waist band.

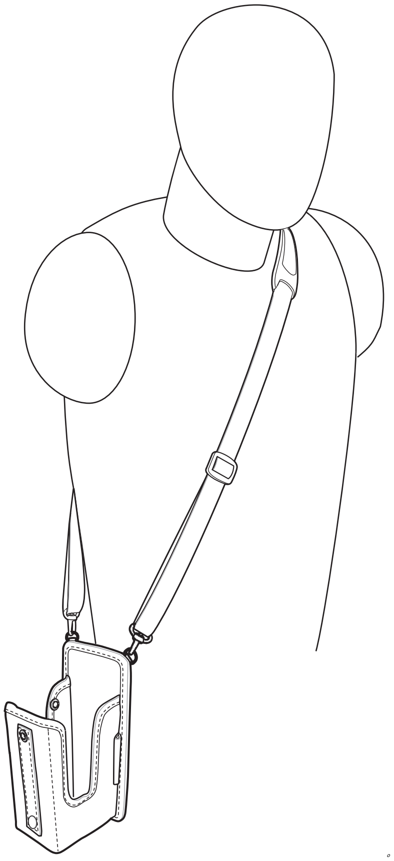
Figure 29 Attach the Fabric Holster to a Belt



Shoulder Strap

Attach the fabric holster to a shoulder strap.

Figure 30 Attach Fabric Holster and Shoulder Strap

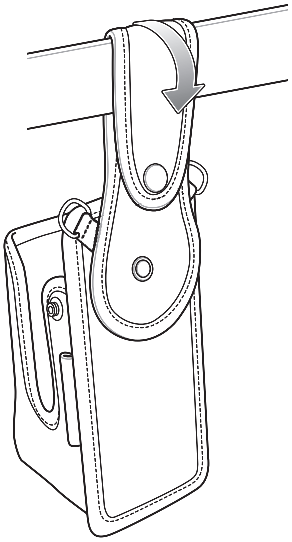


Using the Belt Strap

The Fabric Holster holds the MC3300R on a belt or waist band.

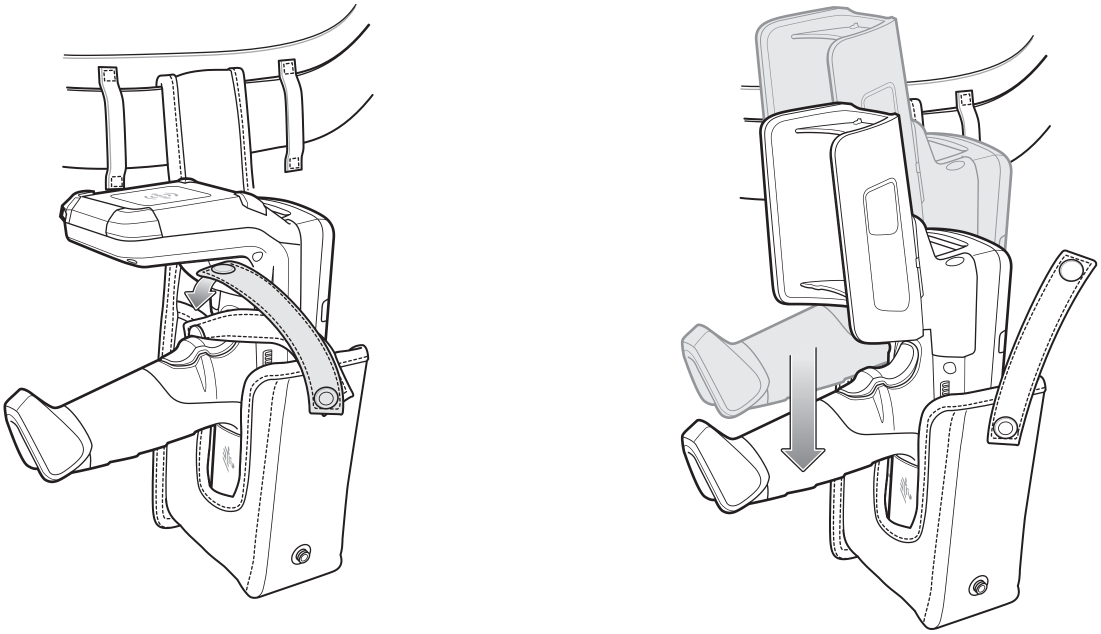
1. Secure the Belt Strap over the belt or waistband and snap into place.

Figure 31 Secure Belt Strap On Belt



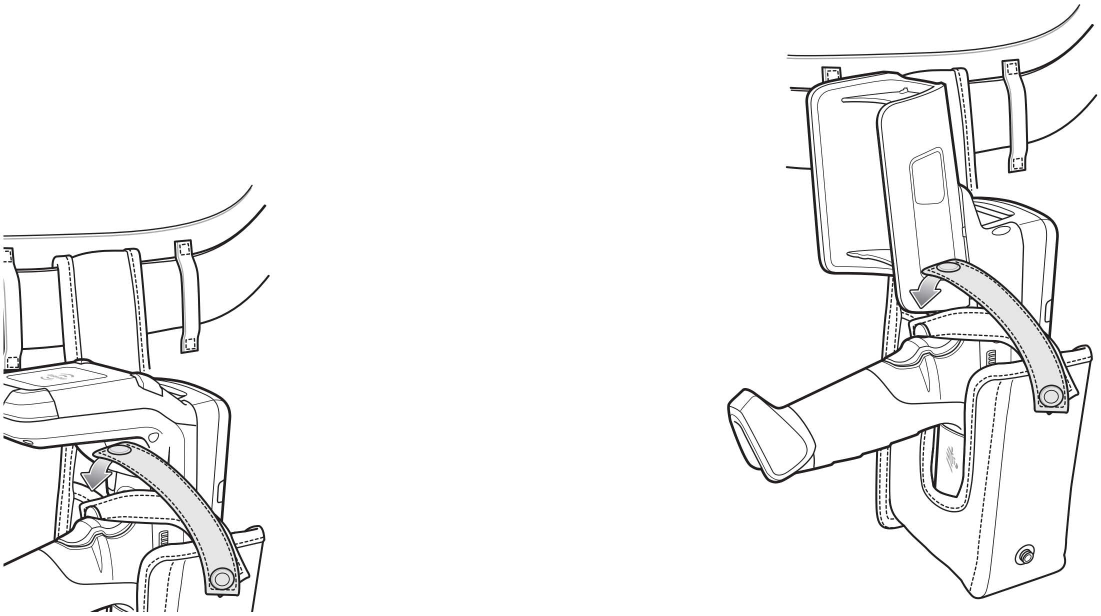
2. To insert the MC3300R, slide the mobile computer (battery end first) into the Fabric Holster with the screen facing the user.

Figure 32 Insert MC3300R



3. Secure the MC3300R with the restraining strap and place over the MC3300R to secure in place.

Figure 33 Secure with Strap

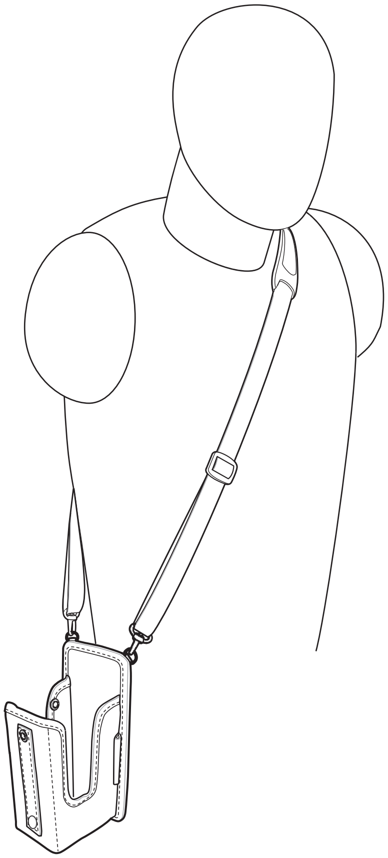


4. To remove the MC3300R, unsnap the restraining strap to release. Lift the MC3300R out of Fabric Holster.

Using the Shoulder Strap

1. Connect the clips on the shoulder strap to the rings on the fabric holster.
2. Place the shoulder strap over your head and rest on your shoulder.

Figure 34 Shoulder Strap



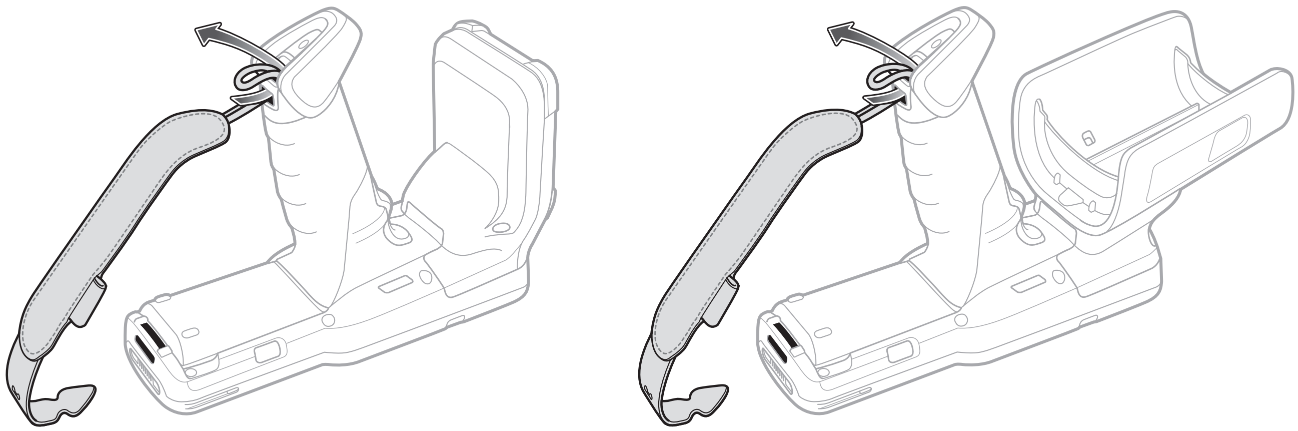
3. Lift the strap and insert the MC3300R into the holster.
4. Secure the strap to hold the MC3300R in place.

Hand Strap

To install the hand strap:

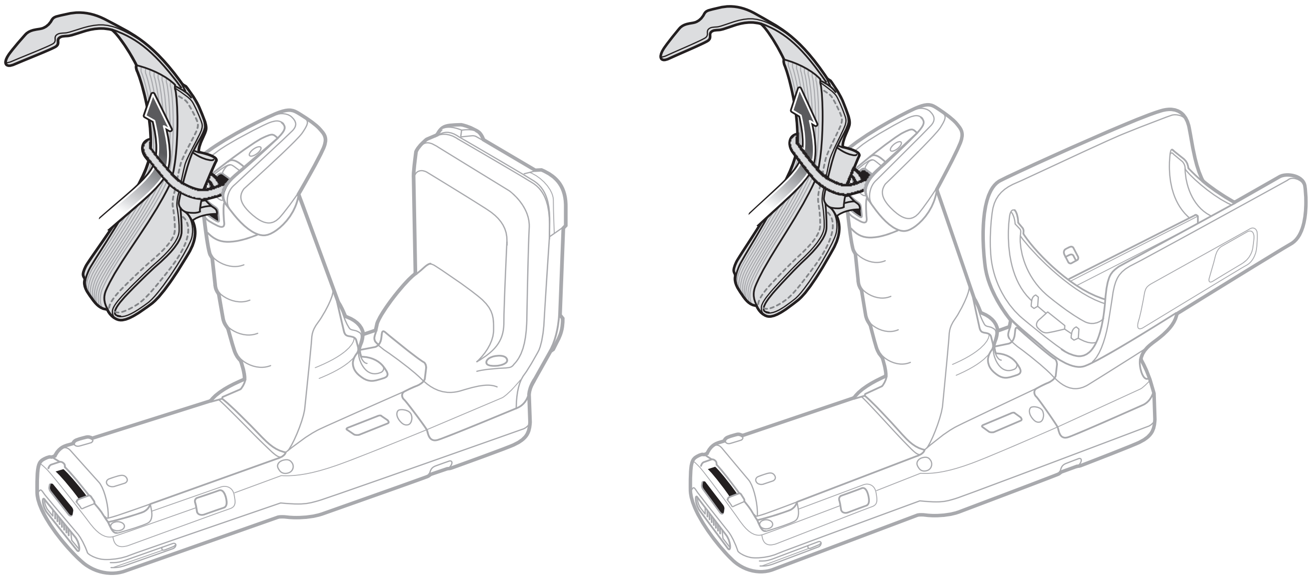
1. Thread the lanyard loop through the opening near the base of the trigger handle.

Figure 35 Insert Loop Through Handle Slot



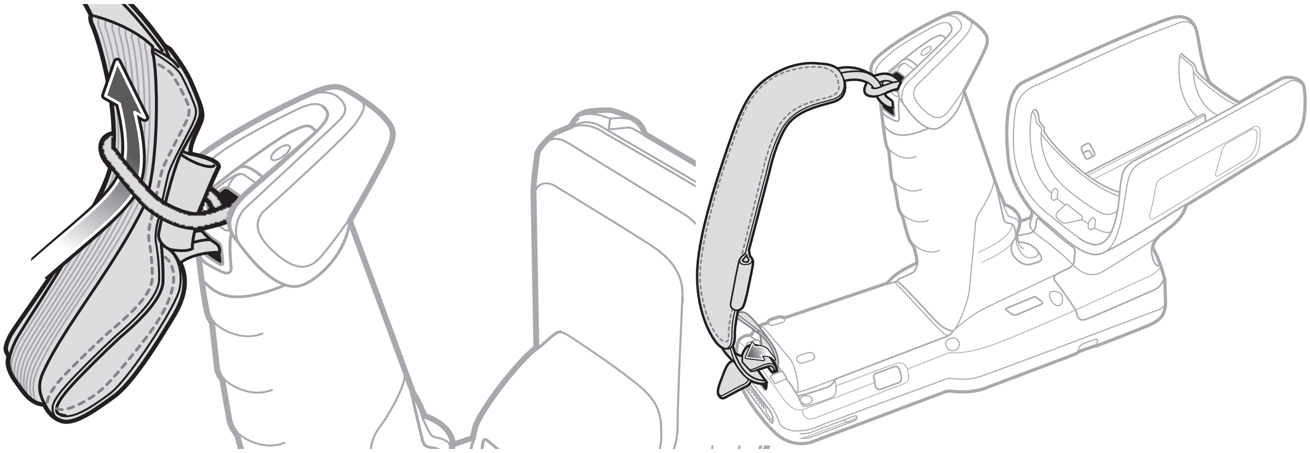
2. Insert the top end of the hand strap through the loop.

Figure 36 Thread Hand Strap Through Loop



3. Thread the hand strap through the lanyard.
4. Pull the hand strap through the loop.
5. Thread the end of the hand strap with the tab through the slot on the bottom of the MC3300R.

Figure 37 Thread Tab Through Slot



6. Slide the tab through the slit in the hand strap so that the tip of the tab is facing away from the MC3300R.

Zebra RFID Mobile Application for Android

Introduction

This chapter describes the enhanced version of the Zebra RFID Mobile Application for Android which demonstrates MC3300R capability and tag operation functionality.

Requirements

Requirements for the Zebra RFID Mobile Application for Android are as follows:

- The recommended Android version on the mobile computer is Nougat version 7.1.x
- Zebra Enterprise RFID mobile computer - MC3300R
- Zebra RFID Manager APK
- Zebra RFID Mobile Application APK.

Zebra RFID Mobile Application for Android

This application runs on Android mobile devices and demonstrates MC3300R capability and tag operation functionality.

The application allows for navigating to all screens at any time, however, some actions are not permitted while the device is charging. These actions include any operation that involves Tag reading or writing (for example: Rapid Read, Inventory, Locate Tag, etc.).

Navigate to all screens when the inventory/locate operation is in progress. When the operation is in progress, the device displays **Operation in Progress** if additional operations are initiated.

Using the Zebra RFID Mobile Application for Android

To use this application for RFID operations:

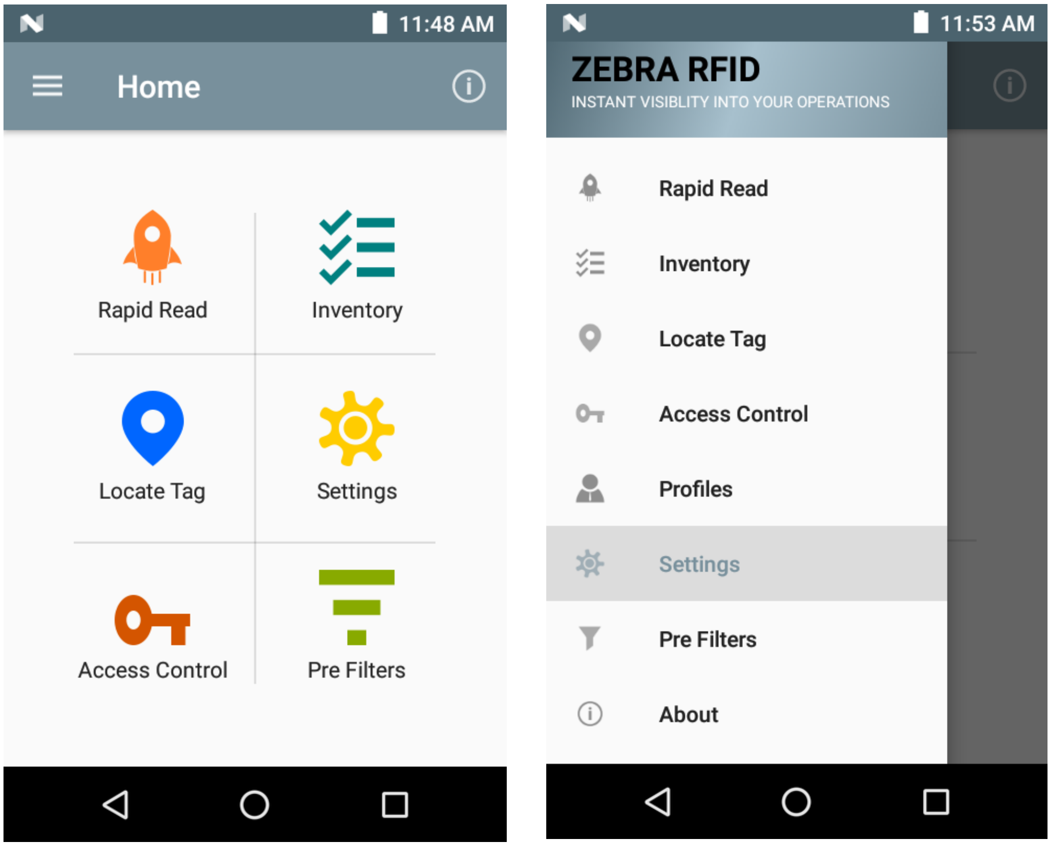
1. Launch the Zebra RFID Mobile Application for Android on the mobile device.
2. Select **Settings** > **Advanced Reader Options** > **Antenna**. Power Level is set to 27.0 dBm by default. However, it is shown as 270 dbm because the value used is in units of tens of dBm. Japan units are set to a different default power level depending on the SKU type.
3. Before using the device and if the region is not set, set the region in which the device is operating. To set the region, open the application and select **Settings** > **Regulatory** (see Power Management on page 88).

Demo Application Screens

Home Screen

To access the Zebra RFID Mobile Application for Android, touch the **Zebra RFID Reader** icon on the mobile device to display the Home screen. Swipe right from the left side of the screen to display the **RFID Reade**r Menu. Tap any menu item to access its screen.

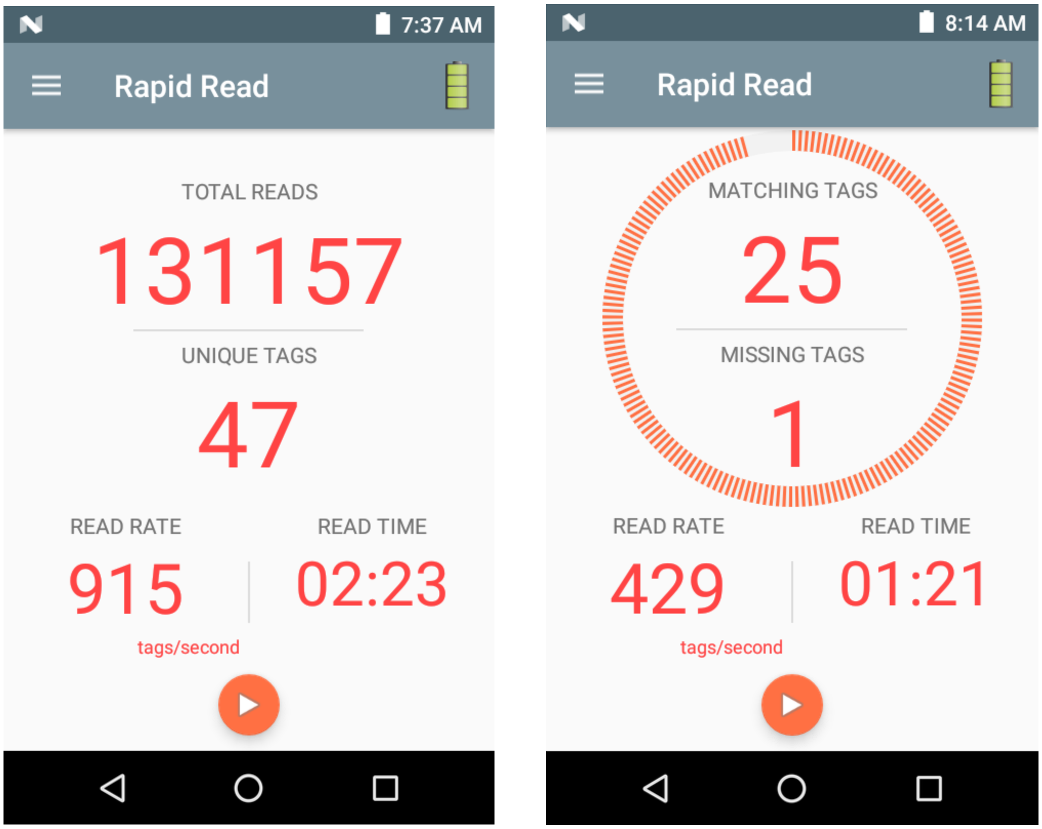
Figure 38 Home and Menu Screens


11:48 AM
Home
Rapid Read
Inventory
Locate Tag
Settings
Access Control
Pre Filters
11:53 AM
ZEBRA RFID
INSTANT VISIBLITY INTO YOUR OPERATIONS
Rapid Read
Inventory
Locate Tag
Access Control
Profiles
Settings
Pre Filters
About

Rapid Read

Tap **Rapid Read** from the **Home** or **Menu** screen.

Figure 39 Rapid Read Screen



TOTAL READS
131157
UNIQUE TAGS
47
READ RATE
915
tags/second
READ TIME
02:23

MATCHING TAGS
25
MISSING TAGS
1
READ RATE
429
tags/second
READ TIME
01:21

The Rapid Read and Inventory screens display the following data (see Inventory on page 61).

- Total tag count
- Unique tag count
- Read time (mm:ss)
- Tag read rate (tags/sec).

Rapid Read and Inventory screens are two different views of the inventory operation on the reader. The **Start/Stop** functionality can be used interchangeably on both screens. For example, when operation starts on the **Rapid Read** screen and you navigate to the **Inventory** screen, the button available on the **Inventory** screen is **Stop**. The same is true when the operation starts on the **Inventory** screen. During the rapid read process, you can navigate to the **Inventory** screen to view tag details along with tag counts for each tag. The statistics displayed are maintained on the **Rapid Read** and **Inventory** screens regardless of the screen used to start the process.

Select **Start** to start the rapid read inventory operation. Select **Stop** to stop inventory operation.

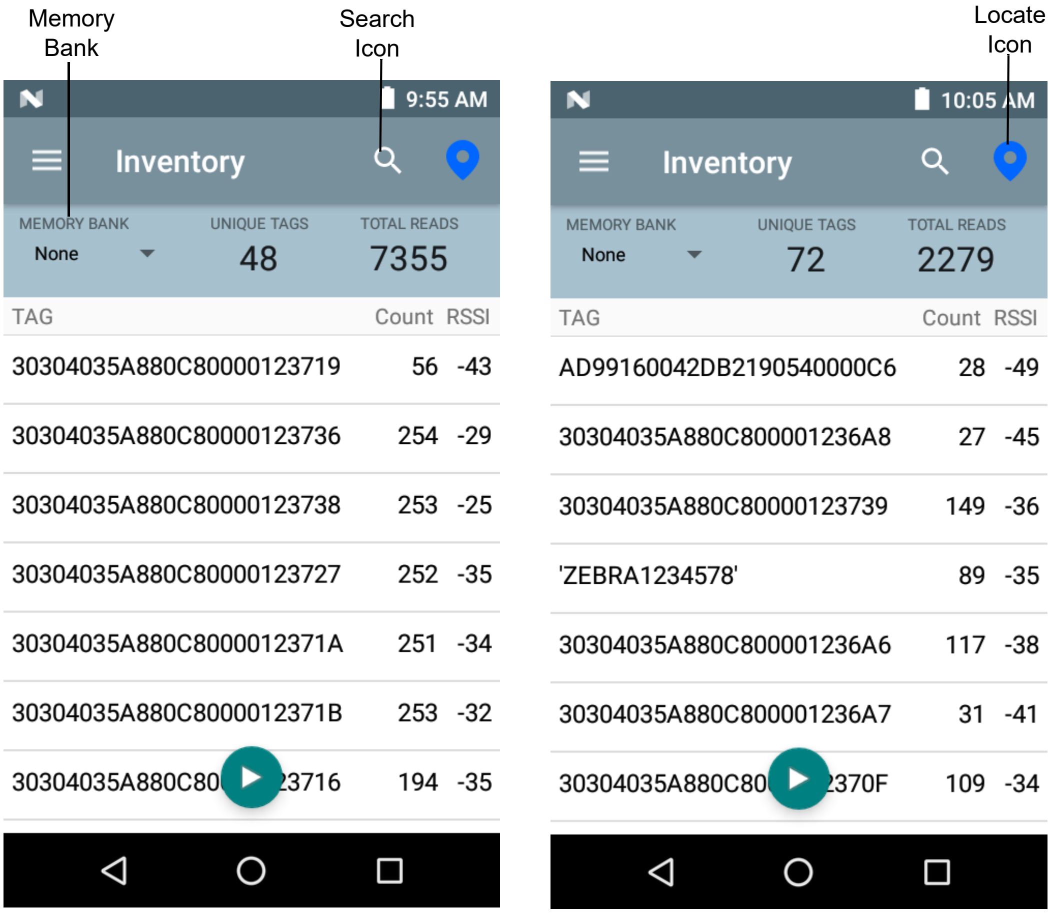
NOTE: The scan trigger on the MC3300R can also start and stop the inventory operation. Press the trigger to start, continue to hold and release to stop.

Moving to another screen does not halt the operation. However, attempting to make changes or perform another operation while rapid read is in process results in an error.

Inventory

Select **Inventory** from the **Home** or **Menu** screen.

Figure 40 Inventory Screen



MEMORY BANK None | UNIQUE TAGS 48 | TOTAL READS 7355

TAG	Count	RSSI
30304035A880C80000123719	56	-43
30304035A880C80000123736	254	-29
30304035A880C80000123738	253	-25
30304035A880C80000123727	252	-35
30304035A880C8000012371A	251	-34
30304035A880C8000012371B	253	-32
30304035A880C80 23716	194	-35

MEMORY BANK None | UNIQUE TAGS 72 | TOTAL READS 2279

TAG	Count	RSSI
AD99160042DB2190540000C6	28	-49
30304035A880C800001236A8	27	-45
30304035A880C80000123739	149	-36
'ZEBRA1234578'	89	-35
30304035A880C800001236A6	117	-38
30304035A880C800001236A7	31	-41
30304035A880C80 2370F	109	-34

Tag reading is started and stopped on this screen as well as on the **Rapid Read** screen (see Rapid Read on page 60). When the process starts, tag information displays on the screen.

Select **Start** to start the rapid read inventory operation. The **Start** button changes to **Stop**. Tap **Stop** to stop the read inventory operation.

NOTE: The scan trigger on the MC3300R can also start and stop the inventory operation. Press the trigger to start, continue to hold and release to stop.

The tag ID selected displays on the **Access, Locate Tag,** and **Pre Filters** screen when navigating to that screen. After selecting tag, tap on the action bar **Locate** icon to go to the Locate screen. The second screen displays the tag which is fully convertible to ASCII format. ASCII mode may be enabled by selecting **Settings** > **Application**.

Inventory Screen Features

Table 11 Inventory Screen Features

Item	Description
Action Bar	
Tags	Tap **Memory Bank** to select one of the following memory bank options from the drop-down menu: • **None** - Defaults to EPC. • **User** - Allows reading user memory bank data when the tag is inventoried. • **Reserved** - Allows reading reserved memory bank data when the tag is inventoried. • **TID** - Allows reading TID memory bank data when the tag is inventoried. • **EPC** - Allows reading EPC memory bank data when the tag is inventoried. When the next inventory operation starts, the details from the selected memory bank displays. This menu is inactive if there is an ongoing operation on the connected reader. • **Default Display** - None.
Search	Tap the **Search** icon and enter a tag ID. Tags that match the entry display in the content area.

Table 11 Inventory Screen Features (Continued)

Item	Description
Power Management	Icon indicates if Dynamic Power is on. See Power Management on page 88. Tap the **Power Management** icon to open the Battery Status screen.
Content Area (select a tag)	Tapping a **Tag ID** highlights the tag. The highlighted Tag ID is populated on the Tag Location text area as well as the Tag Pattern area in the Access Control screen. Tap **Start** to start searching for the tag. See Tag List Match Mode Operation on page 63 for more details. From this screen, return to the **Menu** or go to the **Home** screen and select **Locate Tag**.
Content Area (select a tag)	The tags displayed in this area are based on the option selected from the memory bank. Tap the tag ID to expand details about the tag. Tap the tag ID again to collapse details. Example Default Tag Display: Tag IDTag Count AD99 15404190725965400404 Example Expanded Tag Display: **Note**: Expanded tag detail can only display when the inventory operation is stopped. Memory bank data is shown only when inventory is complete. Tag IDTag Count AD99 15404190725965400404 EPC MEMORY3000 RSSI -50 Phase 1800 USER 1122334455667788AABBCCDDEEFF 1122334455667788AABBCCDDEEFF 1122334455667788AABBCCDDEEFF

Tag List Match Mode Operation

When **Tag List Match Mode** is checked on the **Application** screen (Application on page 76), the application identifies tags from a given set of tags in csv tag list format (comma separated values file). The contents of the csv file displays on the **Inventory** screen. By default, the application shows friendly names from csv files.

Before the inventory starts, the count is zero. Figure 41 displays drop-down menu choices. Select an option to display the type of tags to show when the inventory starts.

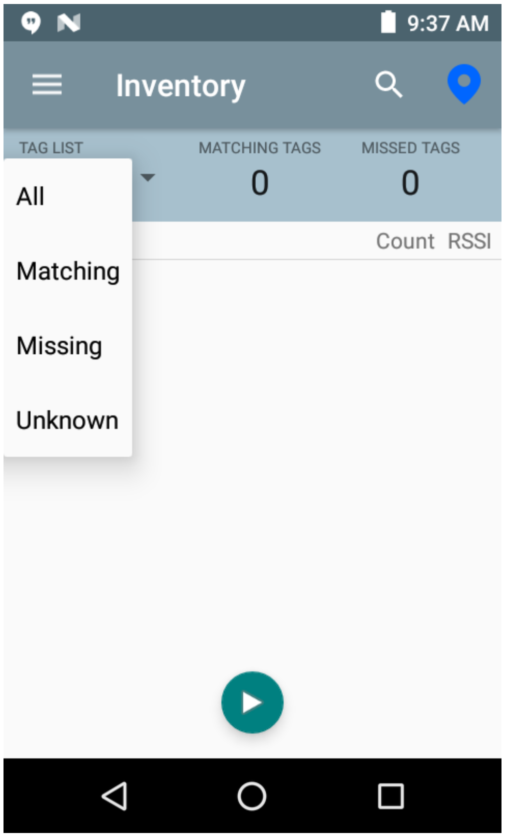
All: Sample 4 Inventory List: Tag List Enabled; All Tag Option Selected on page 68

Matching: See Sample 1 Inventory List: Tag List Enabled; Matching Tag Option Selected on page 65.

Missing: See Sample 2 Inventory List: Tag List Enabled; Missed Tag Option Selected on page 66.

Unknown: Sample 3 Inventory List: Tag List Enabled; Unknown Tag Option Selected on page 67

Figure 41 Tag List Menu


9:37 AM
Inventory
TAG LIST
MATCHING TAGS
0
MISSED TAGS
0
All
Matching
Missing
Unknown
Count
RSSI

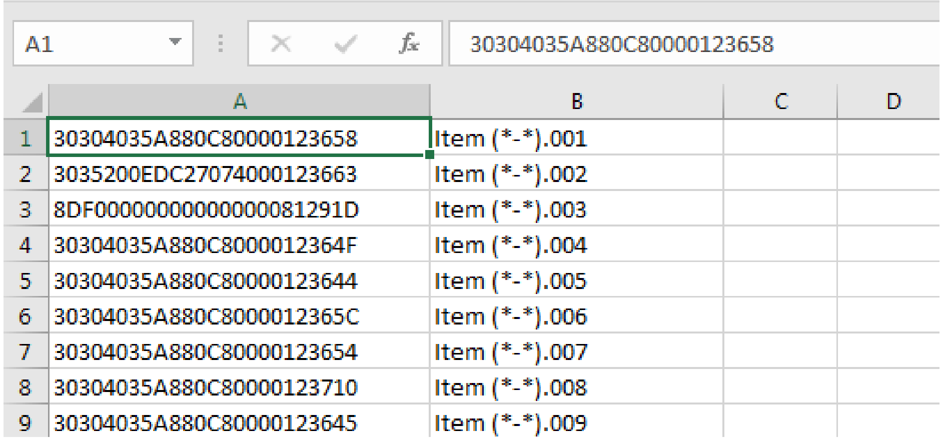
Sample Contents of Taglist.csv File

The csv file should contain only alphanumeric characters in the tag column. If there are any special characters, the row is discarded.

The Taglist.csv file must be located inside the rfid folder which must be manually created at the Android device root directory.

NOTE: The folder name must be all lower case (for example, rfid and not RFID).

Figure 42 Taglist.csv File Contents



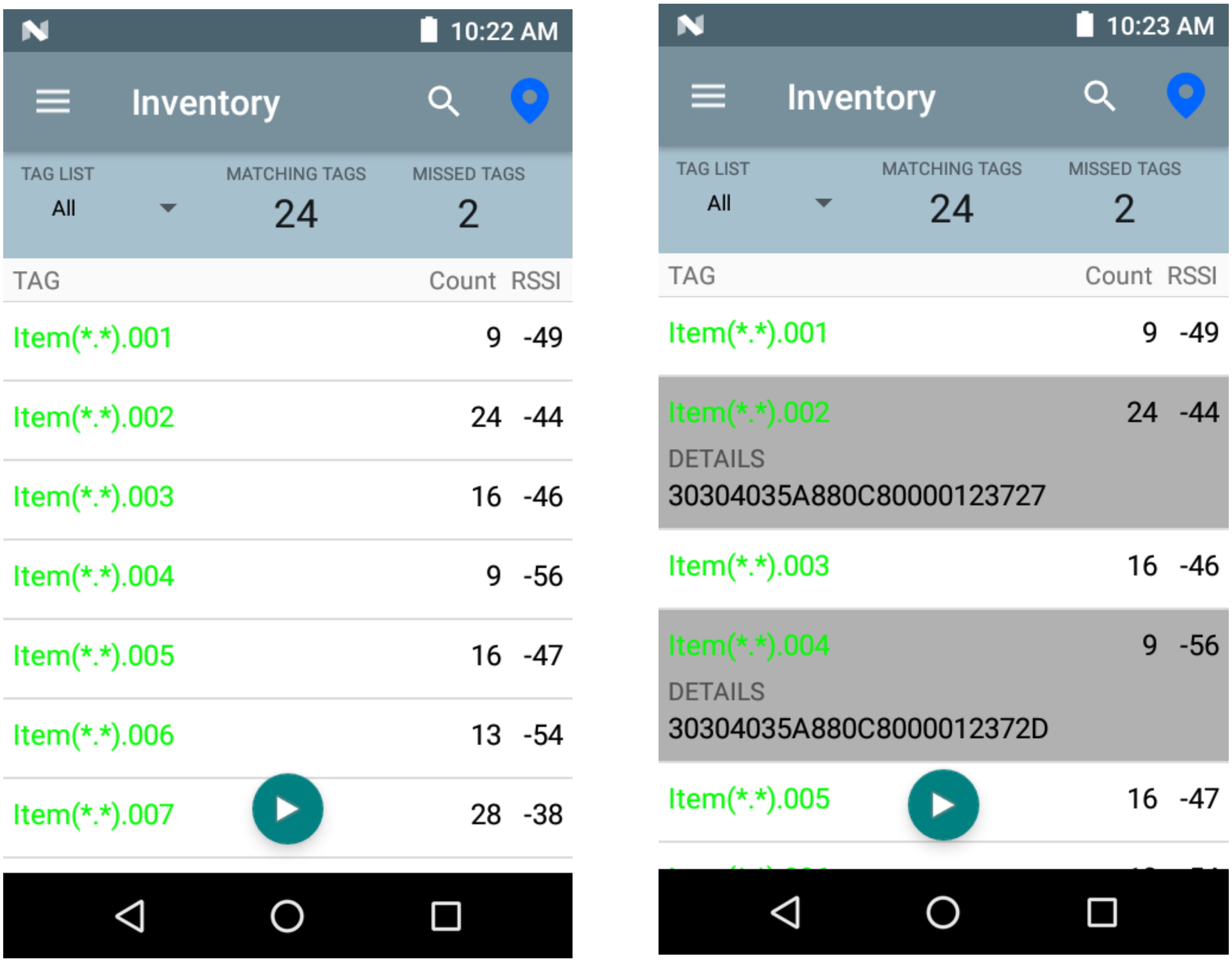
A1 | 30304035A880C80000123658

	A	B	C	D
1	30304035A880C80000123658	Item (*-*).001		
2	3035200EDC27074000123663	Item (*-*).002		
3	8DF00000000000000081291D	Item (*-*).003		
4	30304035A880C8000012364F	Item (*-*).004		
5	30304035A880C80000123644	Item (*-*).005		
6	30304035A880C8000012365C	Item (*-*).006		
7	30304035A880C80000123654	Item (*-*).007		
8	30304035A880C80000123710	Item (*-*).008		
9	30304035A880C80000123645	Item (*-*).009		

Sample 1 Inventory List: Tag List Enabled; Matching Tag Option Selected

When inventory starts, the application only displays the tag reads that match the tags in the taglist.csv file. Matching tags display in green. Select any tag read to show the matching tag details in the csv file.

Figure 43 Matching Taglist.csv File Contents



TAG LIST: All
MATCHING TAGS: 24
MISSED TAGS: 2

TAG	Count	RSSI
Item(*.*).001	9	-49
Item(*.*).002	24	-44
Item(*.*).003	16	-46
Item(*.*).004	9	-56
Item(*.*).005	16	-47
Item(*.*).006	13	-54
Item(*.*).007	28	-38

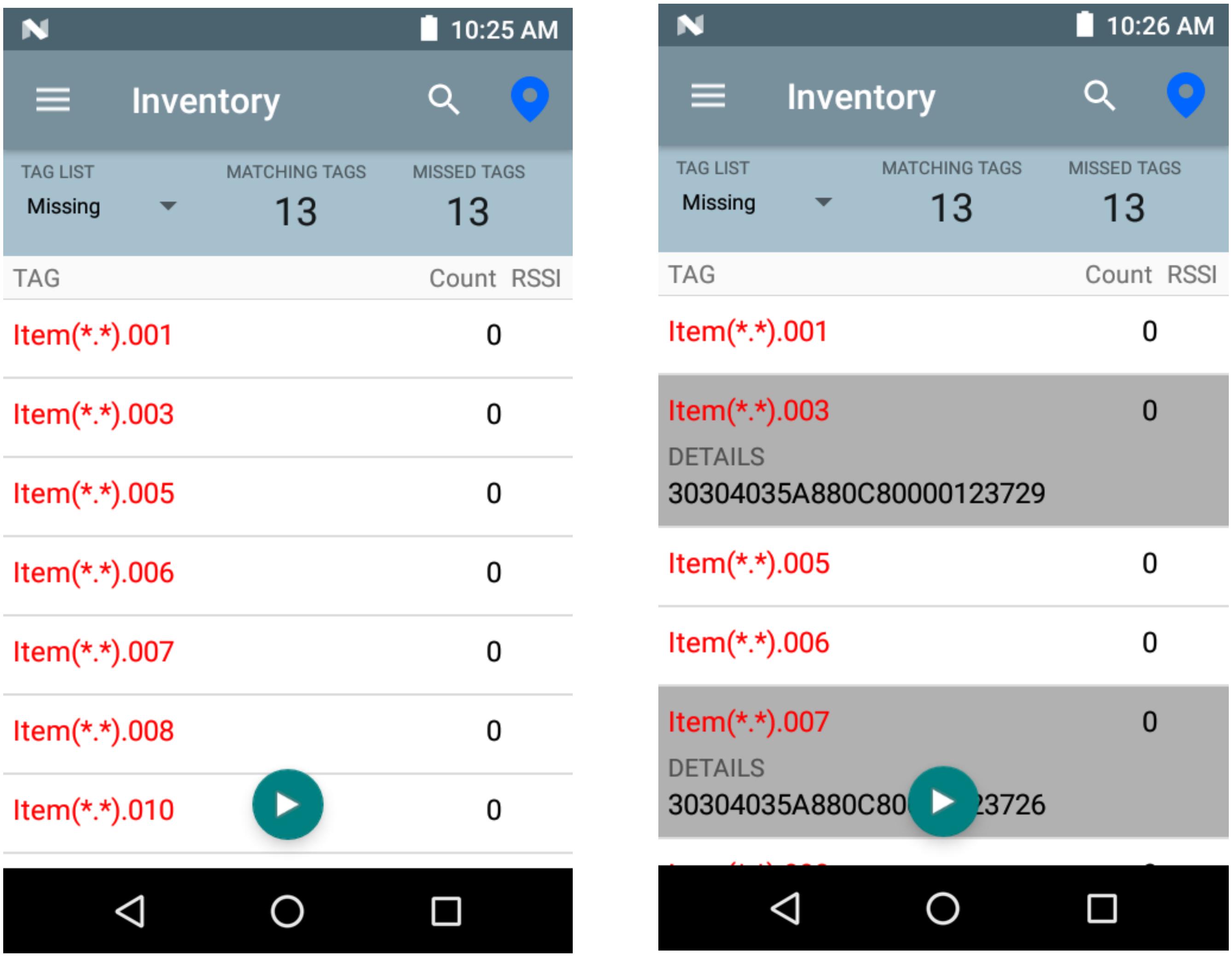
TAG LIST: All
MATCHING TAGS: 24
MISSED TAGS: 2

TAG	Count	RSSI
Item(*.*).001	9	-49
Item(*.*).002 DETAILS 30304035A880C80000123727	24	-44
Item(*.*).003	16	-46
Item(*.*).004 DETAILS 30304035A880C8000012372D	9	-56
Item(*.*).005	16	-47

Sample 2 Inventory List: Tag List Enabled; Missed Tag Option Selected

When inventory starts, the application only displays the tag reads that are missed and included in the taglist.csv file. Missed tags display in red. Select any tag to show the missed tag details in the csv file.

Figure 44 Missed Taglist.csv File Contents



TAG LIST: Missing
MATCHING TAGS: 13
MISSED TAGS: 13

TAG	Count	RSSI
Item(*.*).001	0	
Item(*.*).003	0	
Item(*.*).005	0	
Item(*.*).006	0	
Item(*.*).007	0	
Item(*.*).008	0	
Item(*.*).010	0	

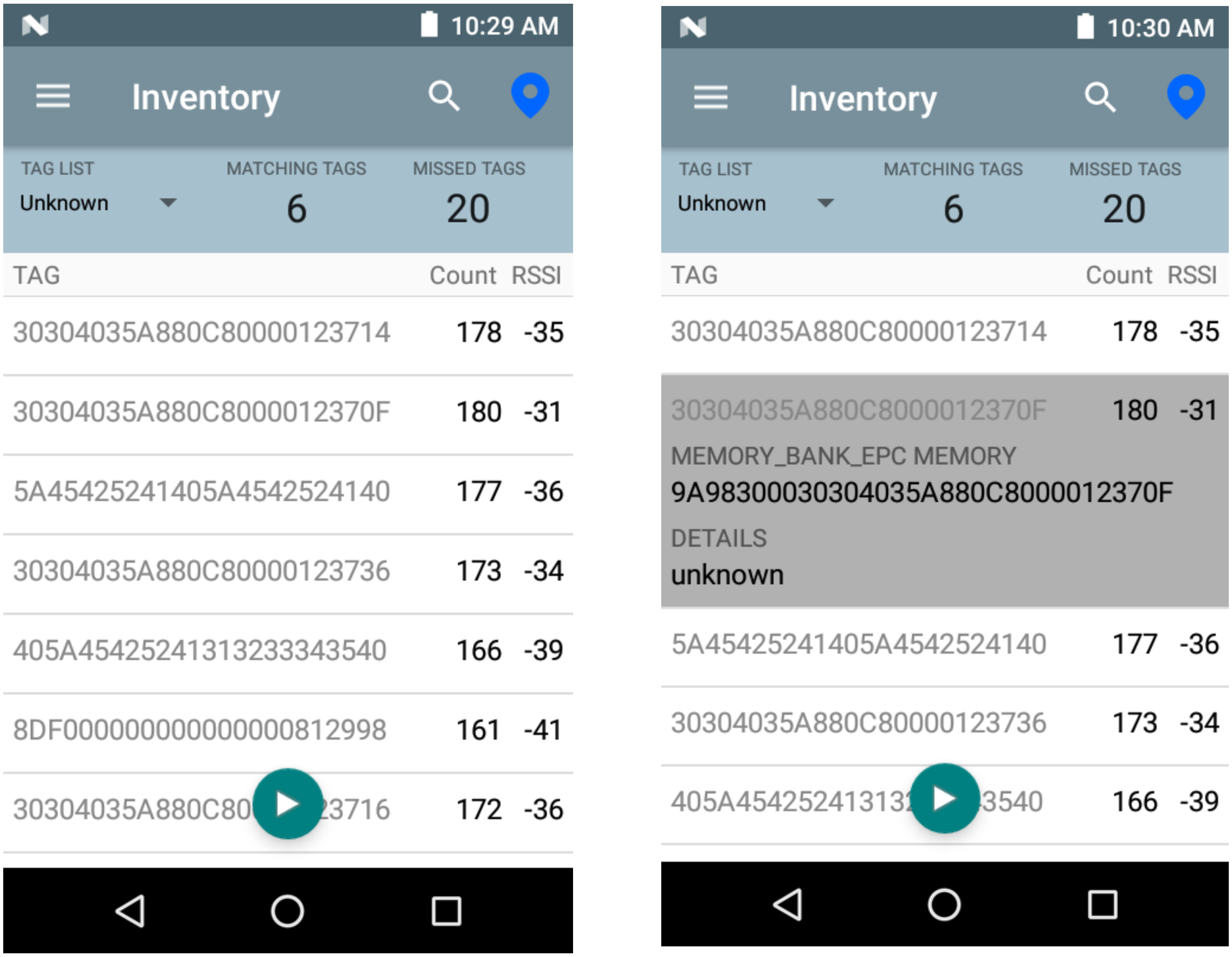
TAG LIST: Missing
MATCHING TAGS: 13
MISSED TAGS: 13

TAG	Count	RSSI
Item(*.*).001	0	
Item(*.*).003 DETAILS 30304035A880C80000123729	0	
Item(*.*).005	0	
Item(*.*).006	0	
Item(*.*).007 DETAILS 30304035A880C80 3726	0	

Sample 3 Inventory List: Tag List Enabled; Unknown Tag Option Selected

When inventory starts, the application only displays tags that were read but not included in the taglist.csv file. Unknown tags display in gray. Select any tag to show the unknown tag details.

Figure 45 Unknown Tags



TAG LIST: Unknown
MATCHING TAGS: 6
MISSED TAGS: 20

TAG	Count	RSSI
30304035A880C80000123714	178	-35
30304035A880C8000012370F	180	-31
5A45425241405A4542524140	177	-36
30304035A880C80000123736	173	-34
405A45425241313233343540	166	-39
8DF000000000000000812998	161	-41
30304035A880C80 23716	172	-36

TAG LIST: Unknown
MATCHING TAGS: 6
MISSED TAGS: 20

TAG	Count	RSSI
30304035A880C80000123714	178	-35
30304035A880C8000012370F	180	-31

MEMORY_BANK_EPC MEMORY
9A98300030304035A880C8000012370F
DETAILS
unknown

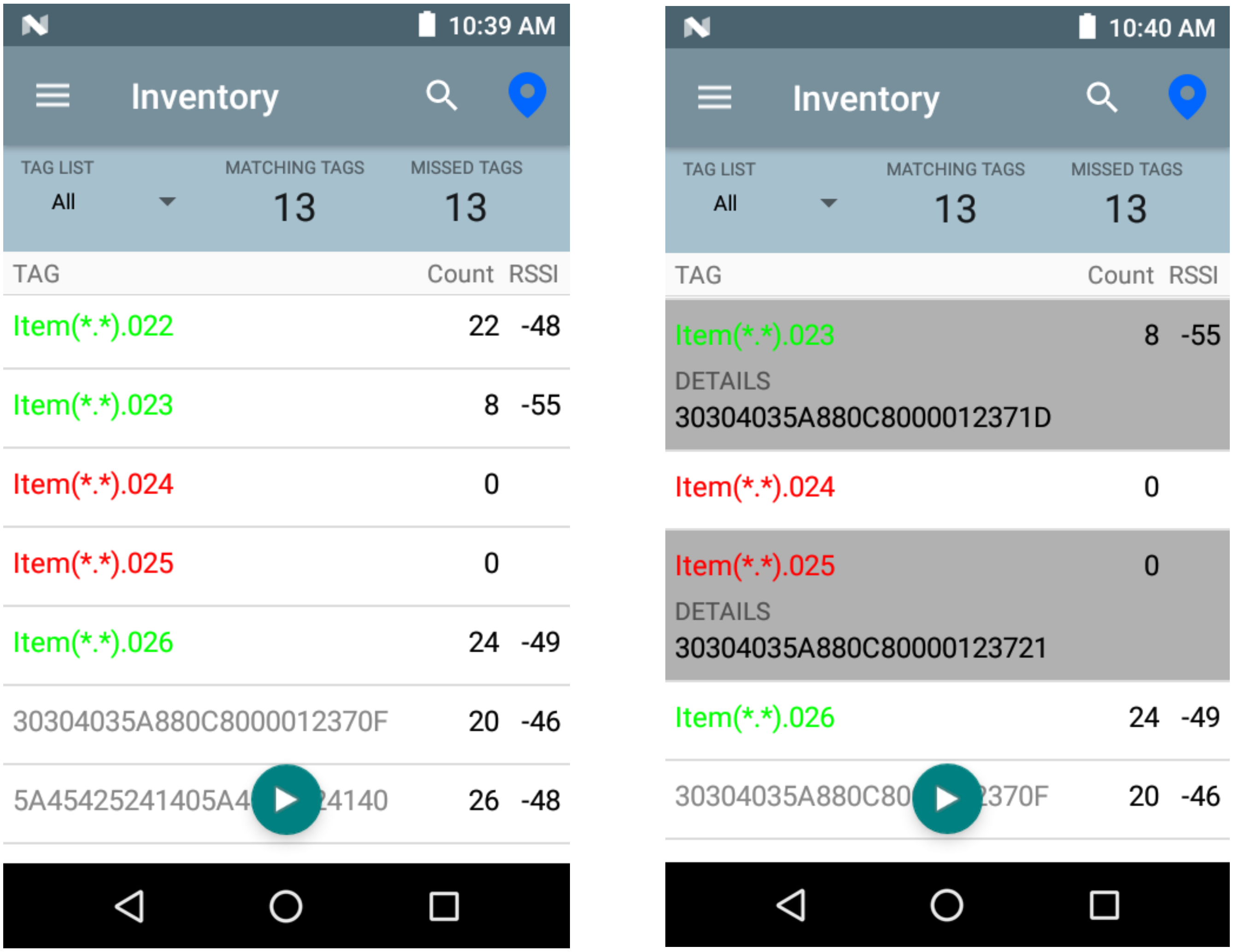
TAG	Count	RSSI
5A45425241405A4542524140	177	-36
30304035A880C80000123736	173	-34
405A45425241313 3540	166	-39

Sample 4 Inventory List: Tag List Enabled; All Tag Option Selected

When inventory starts, the application displays the tags for all of the options:

- Tag reads that match the tags in the taglist.csv file. Matching tags display in green. Select any tag read to show the matching tag details in the csv file.
- Tag reads that are missed and included in the taglist.csv file. Missed tags display in red. Select any tag to show the missed tag details in the csv file.
- Tags that were read but not included in the taglist.csv file. Unknown tags display in gray. Select any tag to show the unknown tag details.

Figure 46 All Tags



TAG LIST: All
MATCHING TAGS: 13
MISSED TAGS: 13

TAG	Count	RSSI
Item(*.*).022	22	-48
Item(*.*).023	8	-55
Item(*.*).024	0	
Item(*.*).025	0	
Item(*.*).026	24	-49
30304035A880C8000012370F	20	-46
5A45425241405A4…24140	26	-48

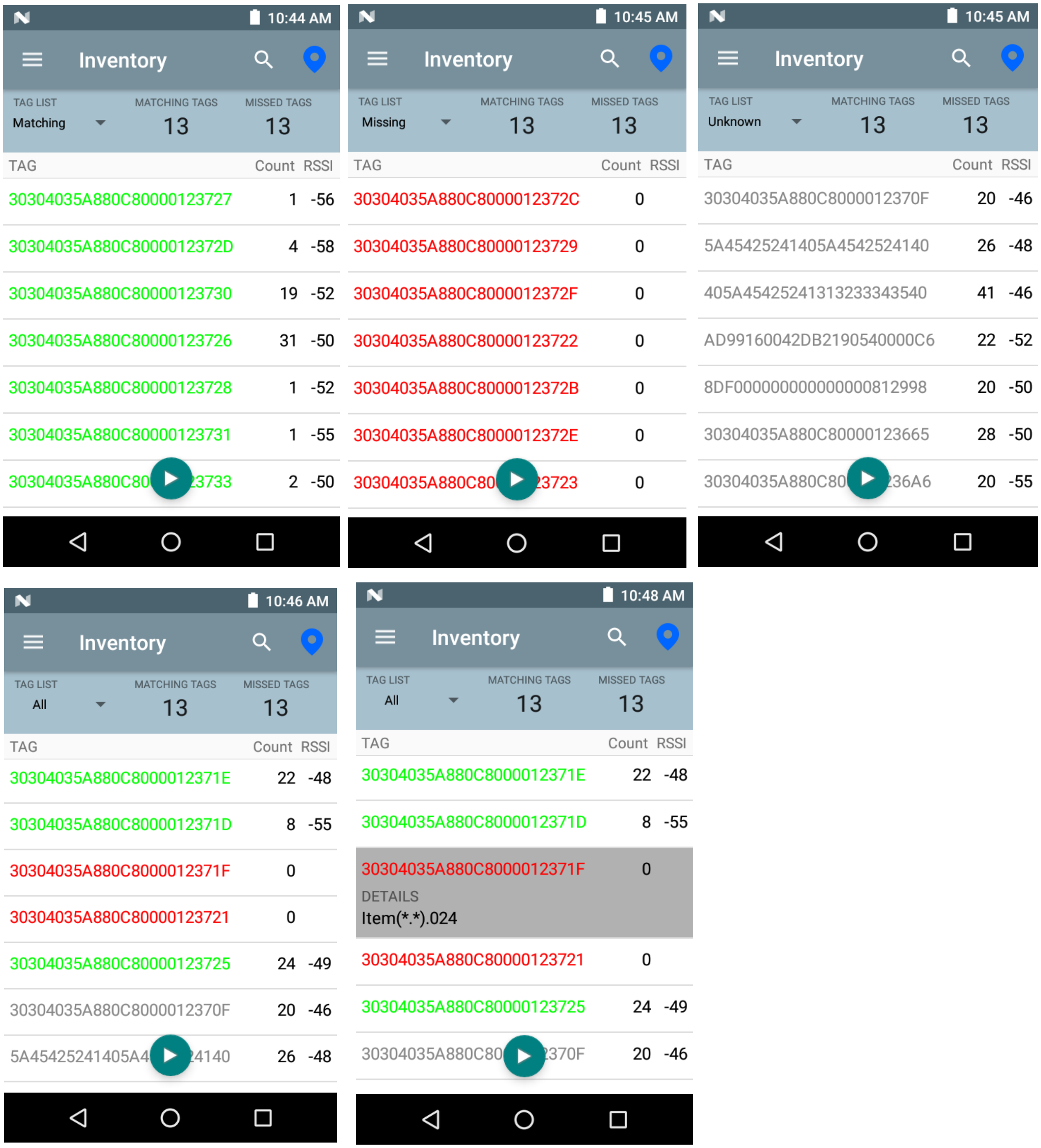
TAG LIST: All
MATCHING TAGS: 13
MISSED TAGS: 13

TAG	Count	RSSI
Item(*.*).023 DETAILS 30304035A880C8000012371D	8	-55
Item(*.*).024	0	
Item(*.*).025 DETAILS 30304035A880C80000123721	0	
Item(*.*).026	24	-49
30304035A880C80…370F	20	-46

Sample 5 Tag List Matching Selected; Show Friendly Not Names Selected

When inventory starts, the application displays the tags for selected options from All, Matching, Missing, or Unknown. Application shows friendly names (i.e., Tag details instead of EPC) on screen.

Figure 47 Show Friendly Names Enabled



10:44 AM

Inventory

TAG LIST: Matching · MATCHING TAGS: 13 · MISSED TAGS: 13

TAG	Count	RSSI
30304035A880C80000123727	1	-56
30304035A880C8000012372D	4	-58
30304035A880C80000123730	19	-52
30304035A880C80000123726	31	-50
30304035A880C80000123728	1	-52
30304035A880C80000123731	1	-55
30304035A880C80 23733	2	-50

10:45 AM

Inventory

TAG LIST: Missing · MATCHING TAGS: 13 · MISSED TAGS: 13

TAG	Count	RSSI
30304035A880C8000012372C	0	
30304035A880C80000123729	0	
30304035A880C8000012372F	0	
30304035A880C80000123722	0	
30304035A880C8000012372B	0	
30304035A880C8000012372E	0	
30304035A880C80 23723	0	

10:45 AM

Inventory

TAG LIST: Unknown · MATCHING TAGS: 13 · MISSED TAGS: 13

TAG	Count	RSSI
30304035A880C8000012370F	20	-46
5A45425241405A4542524140	26	-48
405A4542524131323334354 0	41	-46
AD99160042DB2190540000C6	22	-52
8DF000000000000000812998	20	-50
30304035A880C80000123665	28	-50
30304035A880C80 36A6	20	-55

10:46 AM

Inventory

TAG LIST: All · MATCHING TAGS: 13 · MISSED TAGS: 13

TAG	Count	RSSI
30304035A880C8000012371E	22	-48
30304035A880C8000012371D	8	-55
30304035A880C8000012371F	0	
30304035A880C80000123721	0	
30304035A880C80000123725	24	-49
30304035A880C8000012370F	20	-46
5A45425241405A4 4140	26	-48

10:48 AM

Inventory

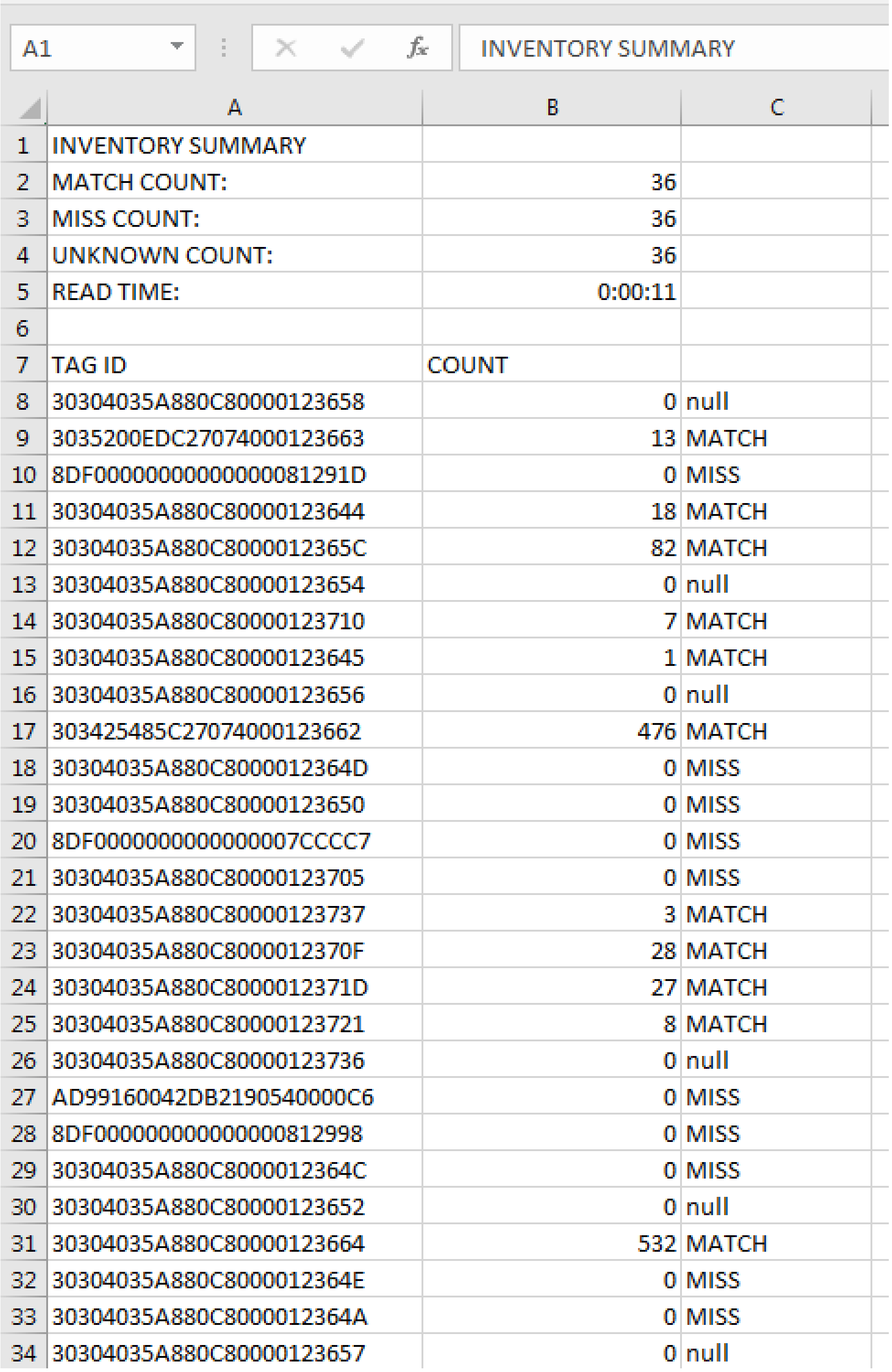
TAG LIST: All · MATCHING TAGS: 13 · MISSED TAGS: 13

TAG	Count	RSSI
30304035A880C8000012371E	22	-48
30304035A880C8000012371D	8	-55
30304035A880C8000012371F DETAILS Item(*.*).024	0	
30304035A880C80000123721	0	
30304035A880C80000123725	24	-49
30304035A880C80 370F	20	-46

Sample 6 Exporting Data - Tag List Matching Selected

The Application screen on page 76 has the option to Export Data. If the option is checked, data is exported when the inventory stops. The tag content area is exportable to a file. For example, when **Matching** is selected from the menu to display only matching tags in the tag content area, the matching data can be exported to a file. The exported csv file includes the matching, missing, and unknown tag count shown in Figure 48.

Figure 48 Exported File Content



INVENTORY SUMMARY

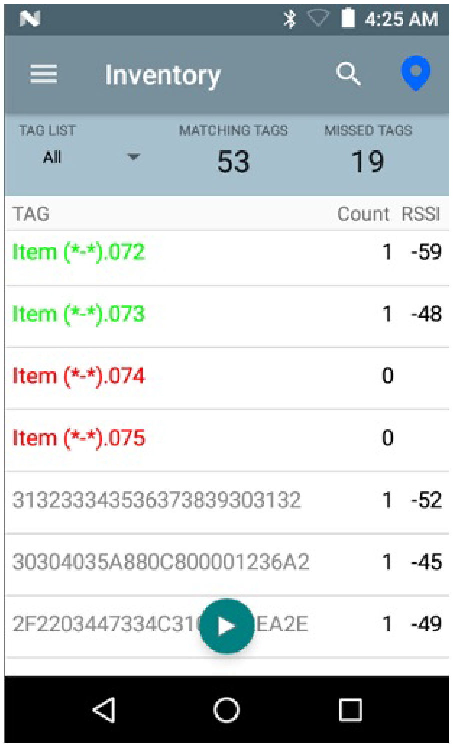
	A	B	C
1	INVENTORY SUMMARY		
2	MATCH COUNT:	36	
3	MISS COUNT:	36	
4	UNKNOWN COUNT:	36	
5	READ TIME:	0:00:11	
6			
7	TAG ID	COUNT	
8	30304035A880C80000123658	0	null
9	3035200EDC27074000123663	13	MATCH
10	8DF00000000000000081291D	0	MISS
11	30304035A880C80000123644	18	MATCH
12	30304035A880C8000012365C	82	MATCH
13	30304035A880C80000123654	0	null
14	30304035A880C80000123710	7	MATCH
15	30304035A880C80000123645	1	MATCH
16	30304035A880C80000123656	0	null
17	303425485C27074000123662	476	MATCH
18	30304035A880C8000012364D	0	MISS
19	30304035A880C80000123650	0	MISS
20	8DF0000000000000007CCCC7	0	MISS
21	30304035A880C80000123705	0	MISS
22	30304035A880C80000123737	3	MATCH
23	30304035A880C8000012370F	28	MATCH
24	30304035A880C8000012371D	27	MATCH
25	30304035A880C80000123721	8	MATCH
26	30304035A880C80000123736	0	null
27	AD99160042DB2190540000C6	0	MISS
28	8DF000000000000000812998	0	MISS
29	30304035A880C8000012364C	0	MISS
30	30304035A880C80000123652	0	null
31	30304035A880C80000123664	532	MATCH
32	30304035A880C8000012364E	0	MISS
33	30304035A880C8000012364A	0	MISS
34	30304035A880C80000123657	0	null

Unique Tag Reporting

When **Unique Tag Reporting** is enabled on the Tag Reporting screen on page 87, the reader reports only unique tags based on the options below.

- When the **Matching** option is selected (see Sample 1 Inventory List: Tag List Enabled; Matching Tag Option Selected on page 65) the tag count cannot be greater than one because the unique tags are only reported one time.
- When the **Matching** option is not selected, the list displays unique and total reads. The tag count cannot be greater than one because the unique tags are only reported one time.

Figure 49 Tag List Mode Enabled



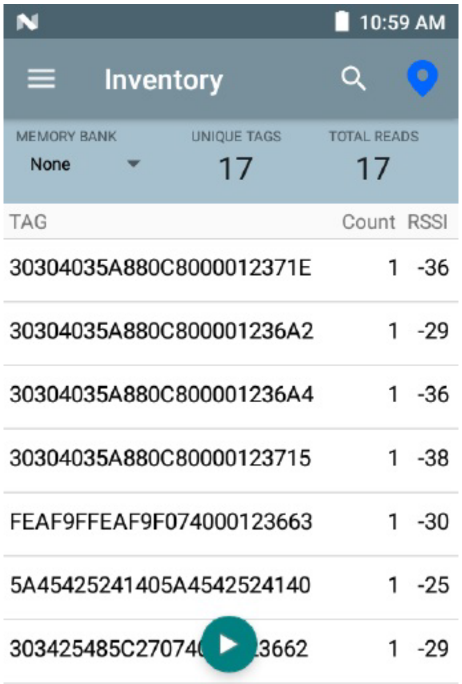
TAG LIST: All

MATCHING TAGS: 53

MISSED TAGS: 19

TAG	Count	RSSI
Item (*-*).072	1	-59
Item (*-*).073	1	-48
Item (*-*).074	0	
Item (*-*).075	0	
313233343536373839303132	1	-52
30304035A880C800001236A2	1	-45
2F2203447334C31 EA2E	1	-49

Figure 50 Tag List Mode - Disabled



MEMORY BANK: None

UNIQUE TAGS: 17

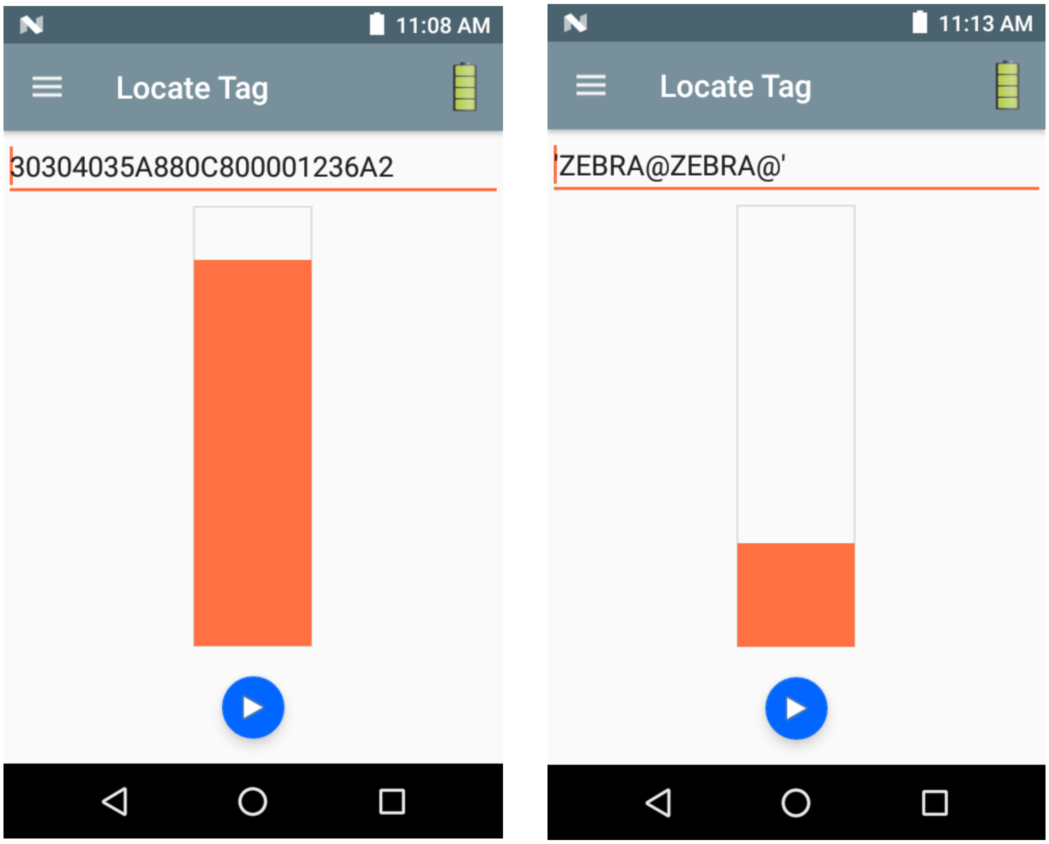
TOTAL READS: 17

TAG	Count	RSSI
30304035A880C8000012371E	1	-36
30304035A880C800001236A2	1	-29
30304035A880C800001236A4	1	-36
30304035A880C80000123715	1	-38
FEAF9FFEAF9F074000123663	1	-30
5A45425241405A4542524140	1	-25
303425485C27074 3662	1	-29

Locate Tag

Tap **Locate Tag** from the **Home** or **Menu** screen.

Figure 51 Locate Tag Screen



30304035A880C800001236A2

'ZEBRA@ZEBRA@'

On this screen, enter the Tag ID in the text area or select a tag from the Inventory screen to pre-populate the Tag ID to search.

Tap **Start** to start the locate tag operation. Tap **STOP** to stop. The MC3300R trigger can also be used to start and stop the operation.

NOTE: The scan trigger on the MC3300R can also start and stop the inventory operation. Press the trigger to start, continue to hold and release to stop.

The color bar on the display shows the relative distance of the tag.

When the locate tag operation starts, moving to another screen does not stop the operation until **Stop** is selected.

Settings

Figure 52 Settings Screen

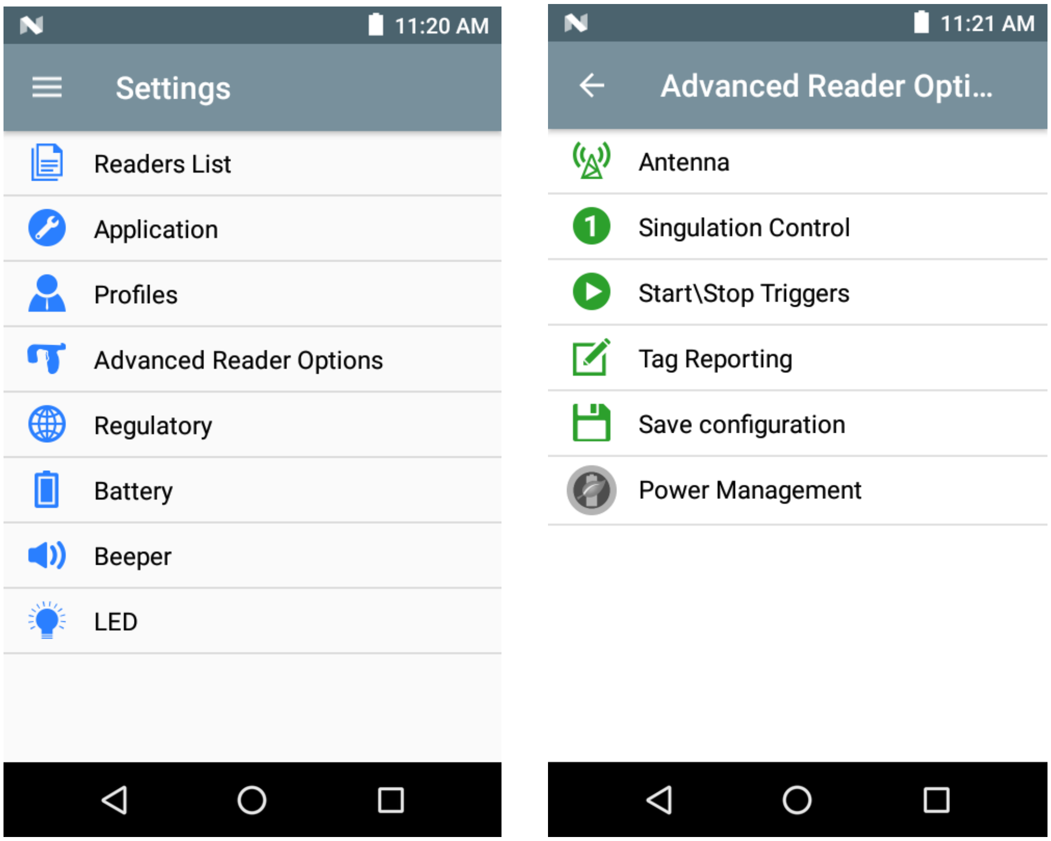

11:20 AM
Settings
Readers List
Application
Profiles
Advanced Reader Options
Regulatory
Battery
Beeper
LED
11:21 AM
Advanced Reader Opti...
Antenna
Singulation Control
Start\Stop Triggers
Tag Reporting
Save configuration
Power Management

Table 12 Settings Screen Options

Settings Option	Description	Page
Readers List	Displays connected MC3300R.	6-75
Application	Displays reader connection, notification, and data export settings.	6-76
Profiles	Displays **Fastest Read, Cycle Count, Dense Readers, Optimal Battery, Balanced Performance, User Defined** and **Reader Defined** profiles.	6-77
Regulatory	Allows region and channel selections.	6-80
Battery	Displays the MC3300R battery status.	6-81
Beeper	Use to turn the beeper on/off, and set volume.	6-82
LED	Enables/Disables MC3300R tag read LED indicator.	6-83
Advanced Reader Options		
Antenna	Displays antenna power lever and link profile.	6-83
Singulation Control	Displays Session, Tag Population, Inventory State and SL Flag.	6-85
Start\Stop Triggers	Allows **Start** and **Stop** button control.	6-86

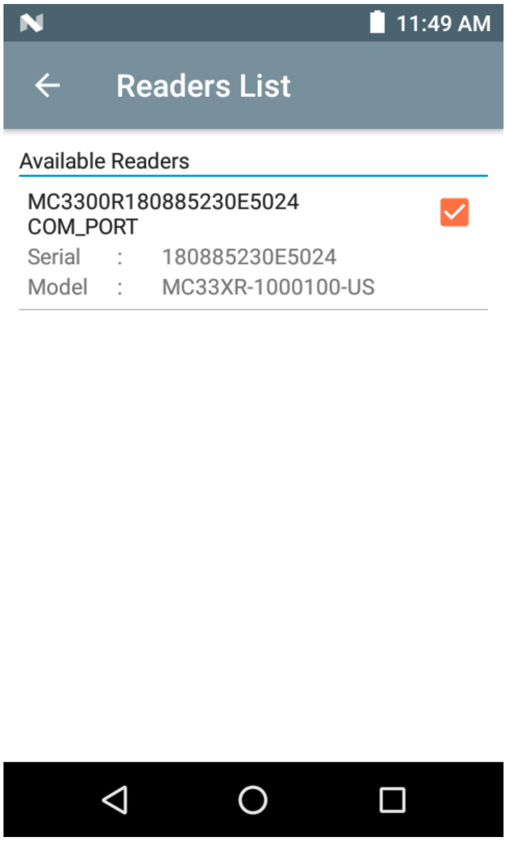
Table 12 Settings Screen Options (Continued)

Settings Option	Description	Page
Tag Reporting	Support for reporting unique tags as part of tag reporting options.	*6-87*
Power Management	Turns Dynamic Power Optimization on and off.	*6-88*
Save Configuration	Ability to save all settings: Antenna, Singulation, Tag Reporting, Start/Stop trigger, Beeper Volume, and Regulatory. **Note:** The settings are also automatically saved when changes are made.	*6-89*

Readers List

From the **Settings** screen, select **Readers List**.

Figure 53 Settings - Readers List Screen



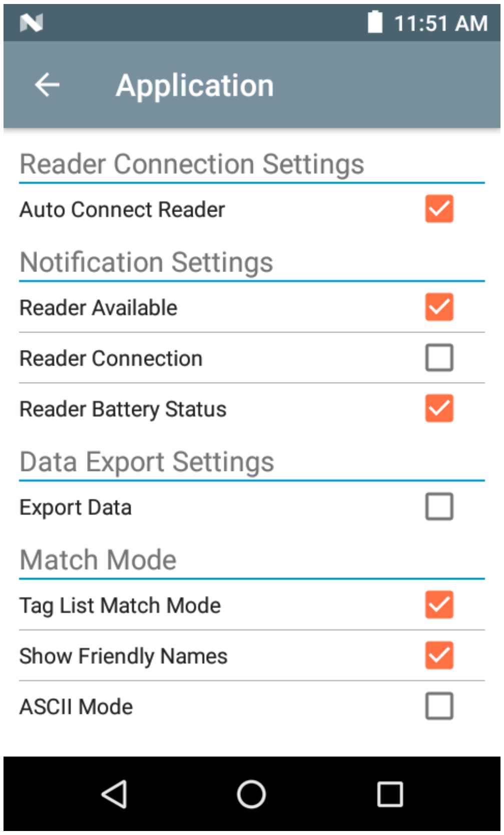
MC3300R180885230E5024
COM_PORT
Serial : 180885230E5024
Model : MC33XR-1000100-US

Tap a reader name from the **Readers List** to establish a session with the selected reader. Tap again to terminate the session.

Application

From the **Settings** screen, select **Application**.

Figure 54 Settings - Application Screen



11:51 AM

Application

Reader Connection Settings

Auto Connect Reader ☑

Notification Settings

Reader Available ☑

Reader Connection ☐

Reader Battery Status ☑

Data Export Settings

Export Data ☐

Match Mode

Tag List Match Mode ☑

Show Friendly Names ☑

ASCII Mode ☐

The application always detects the MC3300R Mobile Computer.

- **Auto Reconnect Reader** - When checked, the device connects to the RFID service which manages the connection to the reader.
- **Export Data** - When checked, the application writes the inventoried RFID data to a file when the inventory operation stops. On Android platforms the file is saved in a fixed directory. Check the files in file browsing in the Inventory directory (Sdcard/inventory/<files>). The files may be copied to a PC.
- **Tag List Match Mode** - Check to enable matching mode.
- **Show friendly names** - Check to show the tag's friendly names instead of EPC ID. **Show friendly names** is only available when **Tag List Match Mode** is enabled.
- **ASCII Mode** - Displays tag ID in ASCII format. If the full tag ID or memory bank data is convertible to ASCII format, then the application only shows the same. Inventory, Locate, Access, and Pre Filters show ASCII mode represented data in respective sections.

Profiles

To display the list of profiles, tap on **Settings** > **Profile**.

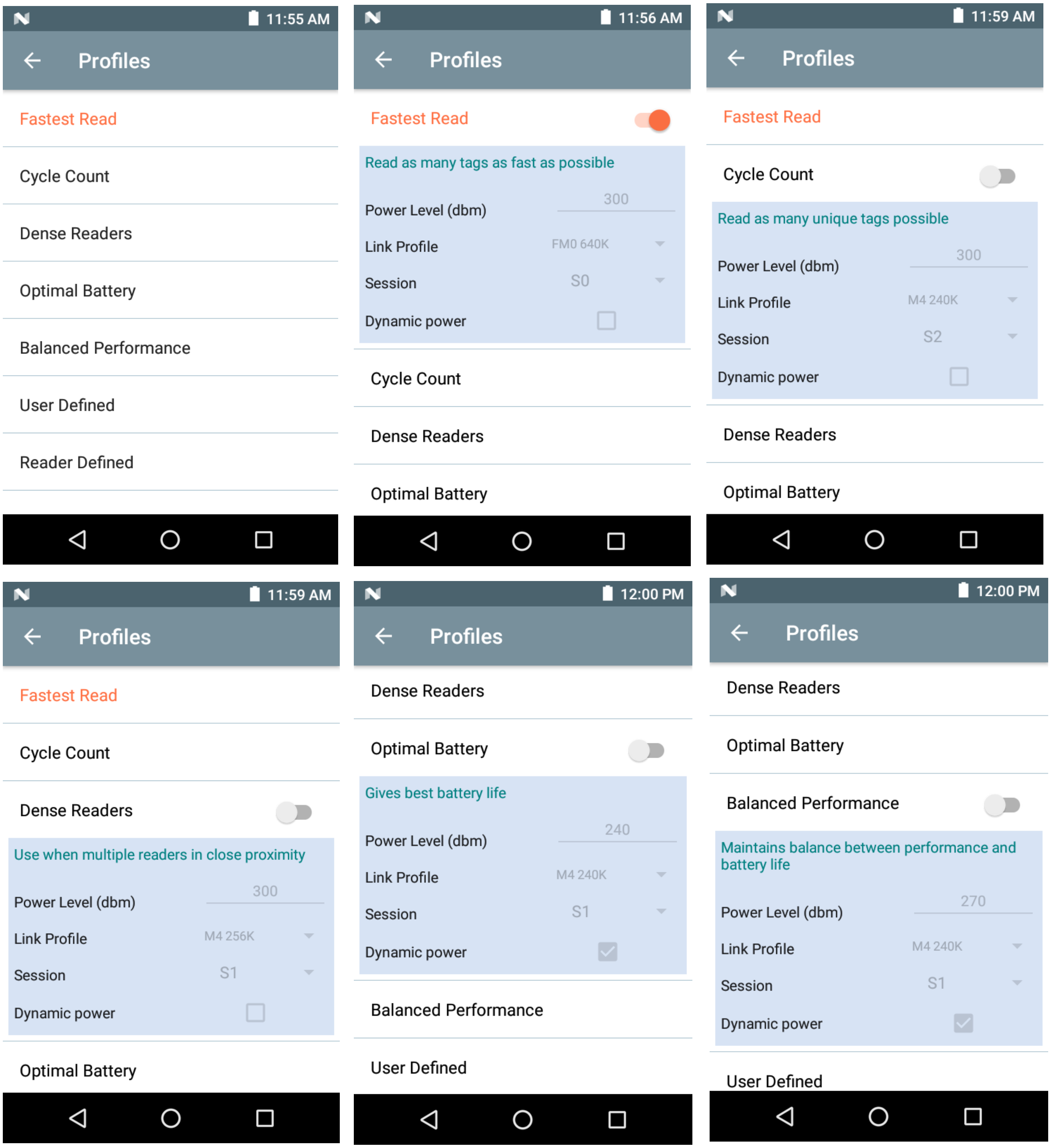
- The currently selected profile is highlighted in orange.
- Tap profile item to expand the profile and view applicable configurations.
- Profiles can be selected or disabled by using the slider switch to the right of the profile name.

NOTE: If Power Level, Link Profile, Session, or Dynamic Power are modified from each respective screen, then the currently selected profile changes to User Defined profile and profile item values are modified with same values.

Profile setting options are as follows:

- Fastest Read - Read as many tags as fast as possible.
- Cycle Count - Read as many unique tags as possible.
- Dense Readers - Use when there are multiple readers within close proximity.
- Optimal Battery - Provides best battery life.
- Balanced Performance - Maintains balance between performance and battery life.
- User Defined - Custom profile used for custom requirements.
- Reader Defined - Maintains reader configurations.

Figure 55 Profiles Settings



11:55 AM

Profiles

Fastest Read

Cycle Count

Dense Readers

Optimal Battery

Balanced Performance

User Defined

Reader Defined

11:56 AM

Profiles

Fastest Read

Read as many tags as fast as possible

Power Level (dbm) 300

Link Profile FM0 640K

Session S0

Dynamic power ☐

Cycle Count

Dense Readers

Optimal Battery

11:59 AM

Profiles

Fastest Read

Cycle Count

Read as many unique tags possible

Power Level (dbm) 300

Link Profile M4 240K

Session S2

Dynamic power ☐

Dense Readers

Optimal Battery

11:59 AM

Profiles

Fastest Read

Cycle Count

Dense Readers

Use when multiple readers in close proximity

Power Level (dbm) 300

Link Profile M4 256K

Session S1

Dynamic power ☐

Optimal Battery

12:00 PM

Profiles

Dense Readers

Optimal Battery

Gives best battery life

Power Level (dbm) 240

Link Profile M4 240K

Session S1

Dynamic power ☑

Balanced Performance

User Defined

12:00 PM

Profiles

Dense Readers

Optimal Battery

Balanced Performance

Maintains balance between performance and battery life

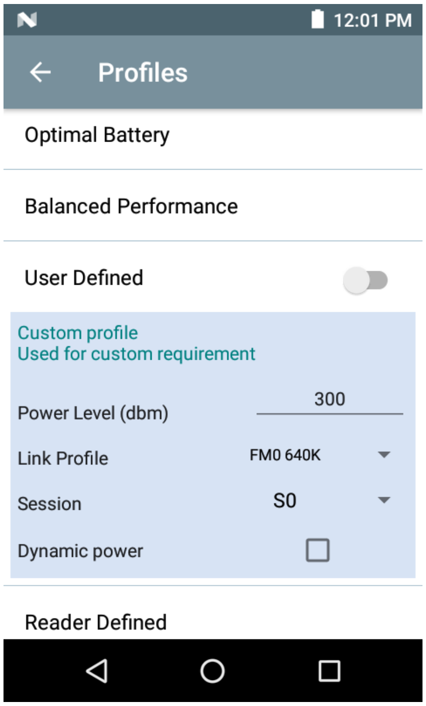
Power Level (dbm) 270

Link Profile M4 240K

Session S1

Dynamic power ☑

User Defined



Optimal Battery

Balanced Performance

User Defined

Custom profile
Used for custom requirement

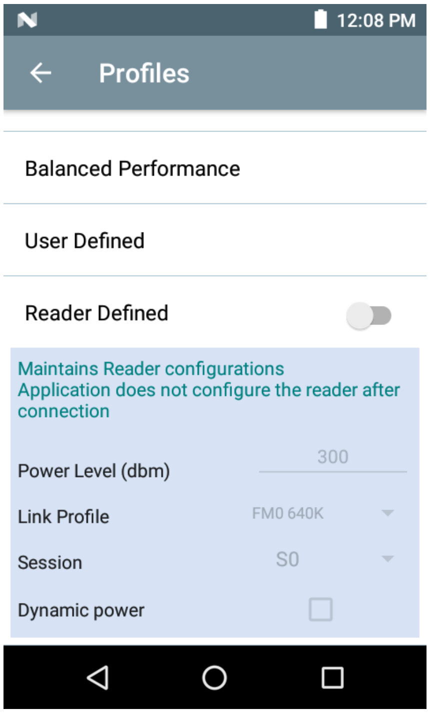
Power Level (dbm) 300

Link Profile FM0 640K

Session S0

Dynamic power ☐

Reader Defined



Balanced Performance

User Defined

Reader Defined

Maintains Reader configurations
Application does not configure the reader after connection

Power Level (dbm) 300

Link Profile FM0 640K

Session S0

Dynamic power ☐

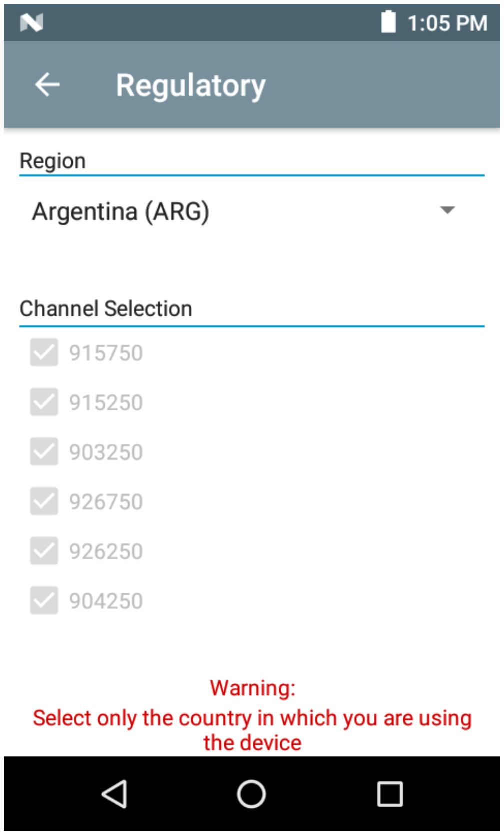
Regulatory

The region drop-down displays the current region to which the device is set. Choose the correct region before using the device.

- **Channel Selection** is allowed only for the regions that allow channel setting.
- Supported regions are reported by the MC3300R.
- If the region is not configured on the MC3300R, the **Regulatory** screen is the first screen displayed after connecting to the MC3300R.

NOTE: Select only the country in which the device is used.

Figure 56 Settings - Regulatory



Region

Argentina (ARG)

Channel Selection

☑ 915750
☑ 915250
☑ 903250
☑ 926750
☑ 926250
☑ 904250

Warning:
Select only the country in which you are using the device

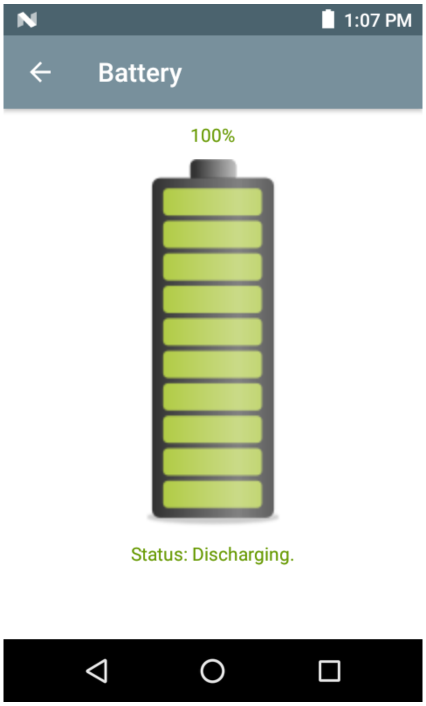
Battery

This screen displays the status of the battery. The battery levels are as follows:

- Level is high (green) Status - Battery is mostly charged
- Critical (red) Status - Battery Level is Critical
- Low (orange) Status - Battery Level Low
- Reader is not connected (grey) - No Active Connection.

The battery percentage is provided as text above the battery indicator and the status field below the battery indicator provides charging/discharging information.

Figure 57 Settings - Battery

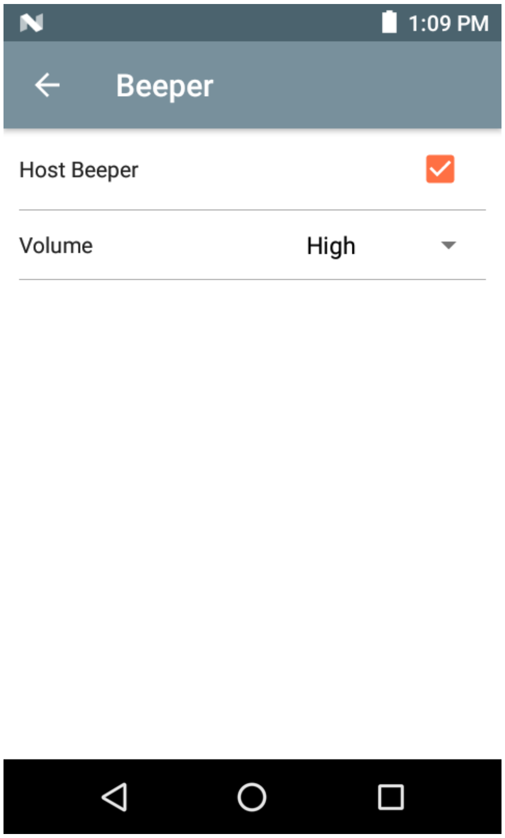


Beeper

The Beeper screen displays the current beeper settings. To turn the beeper Off, un-check the **Host Beeper** check box. To set the beeper volume, select the **Volume** drop-down menu and select **High**, **Medium** or **Low**.

The mobile computer provides a beep indication for inventory and access operations.

Figure 58 Settings - Host Beeper



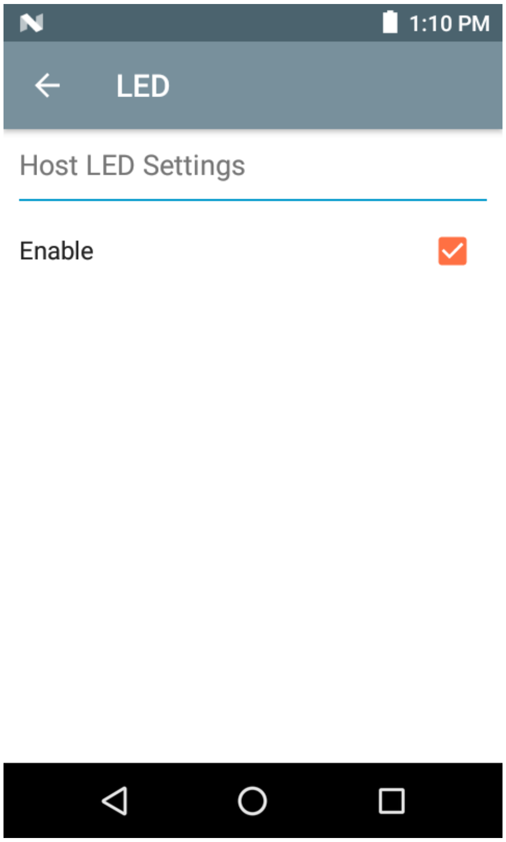
Host Beeper ☑

Volume High

LED

The **LED** screen displays the current host LED settings. To enable the mobile computer LED, select the **Enable** check box. During inventory and access related operations, the LED blinks green for a successful read.

Figure 59 Settings - Host LED



Host LED Settings

Enable ☑

Antenna

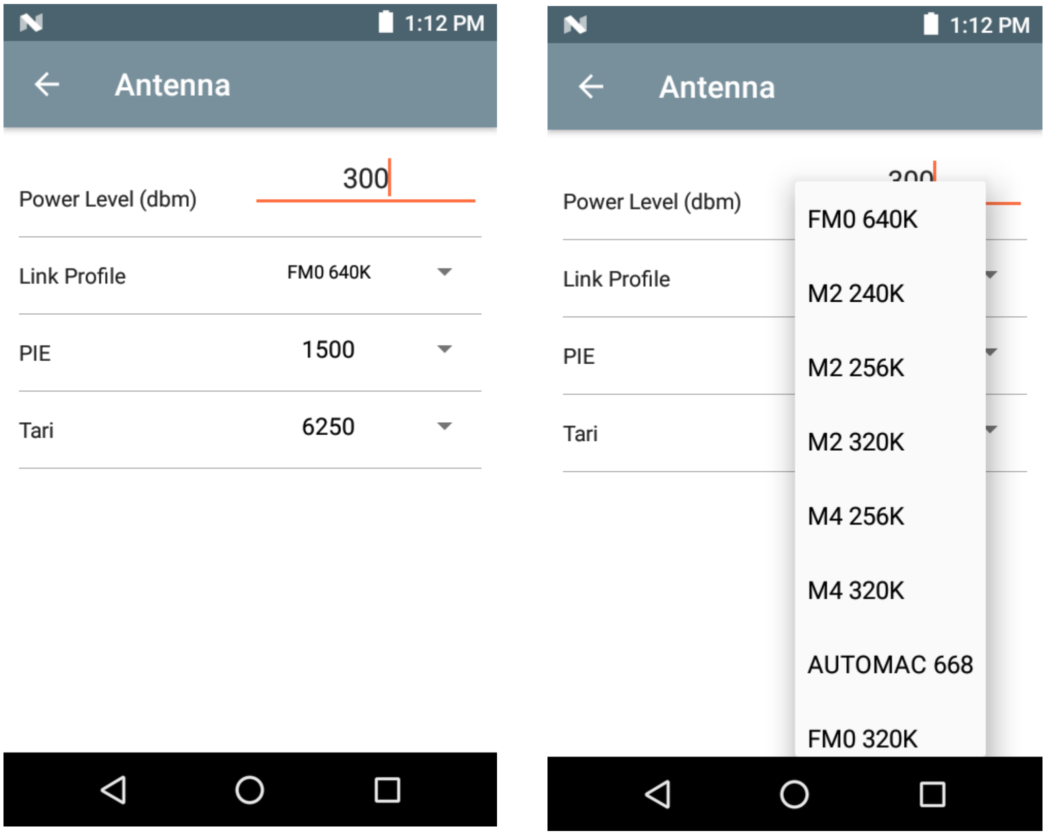
To access the Antenna screen, go to: **Settings** > **Advanced Reader Options** > **Antenna**. The Antenna screen displays the following:

- **Power Level** - Displays the current selection and a text box for available power levels (as reported by the MC3300R). The default setting is 27.0 dBm (shown as 270; the value displayed is in units of tens of dBm). Japan units are set to a different default power level depending on the SKU type.

  The minimum power level when DPO is enabled is 3.1 dBm. When DPO is disabled, the minimum power level is 0 dBm.
- **Link Profile** - Displays the current selection and includes a drop-down list of available link profiles (reported by MC3300R).

  Link Profile display format is as follows: Return link bit data rate in bis per second (e.g., 60000 -> 60 Kbs); Miller Value (e.g., MV_4 -> Miller 4); thus profile name M4 240K (240K becomes BLF) modulation type (PR ASK is the only one supported).
- **PIE** value has no units and is either 1500 and 2000 minimum.
- **Tari** applicable Tari value in thousands of micro seconds (e.g., 6250 -> 6.25 microseconds).
- The **Power Level** and **Link Profile** are blank when there is no connection to the reader.

Figure 60 Antenna Screen


1:12 PM
Antenna
1:12 PM
Antenna
FM0 640K
M2 240K
M2 256K
M2 320K
M4 256K
M4 320K
AUTOMAC 668
FM0 320K

Power Level (dbm) 300

Link Profile FM0 640K

PIE 1500

Tari 6250

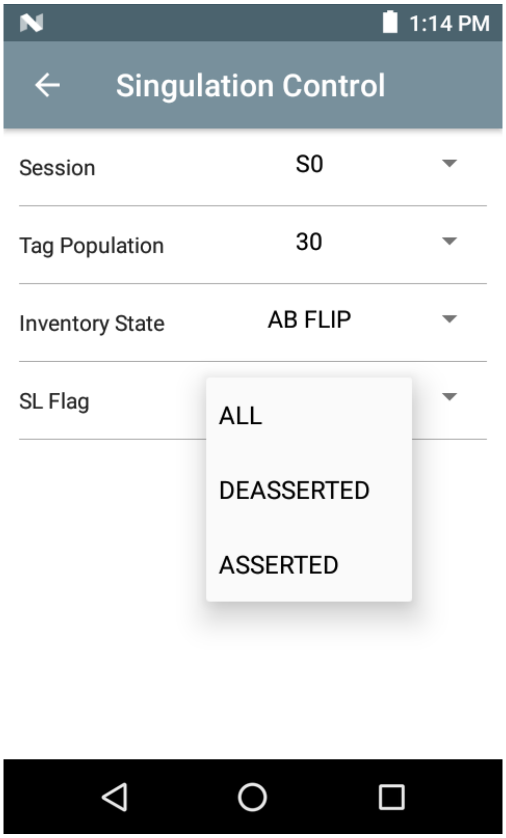
NOTE: The Power Level and Link Profile are blank when there is no connection to the reader.

Singulation Control

To access Singulation Control, go to: **Settings** > **Advanced Reader Options** > **Singulation Control**. View or configure the singulation control settings for each antenna.

- **Session** - The drop-down list includes the available session options (S0, S1, S2, S3).
- **Tag Population** - A numeric value of the estimated number of tags in the Field of View (FOV). Values shown are 30, 100, 200, 300, 400, 500, 600.
- **Inventory State** - State A, State B, AB Flip.
- **SL flag** - ALL, DEASSERTED, ASSERTED.

Figure 61 Singulation Control Screen



Session S0

Tag Population 30

Inventory State AB FLIP

SL Flag

Start\Stop Triggers

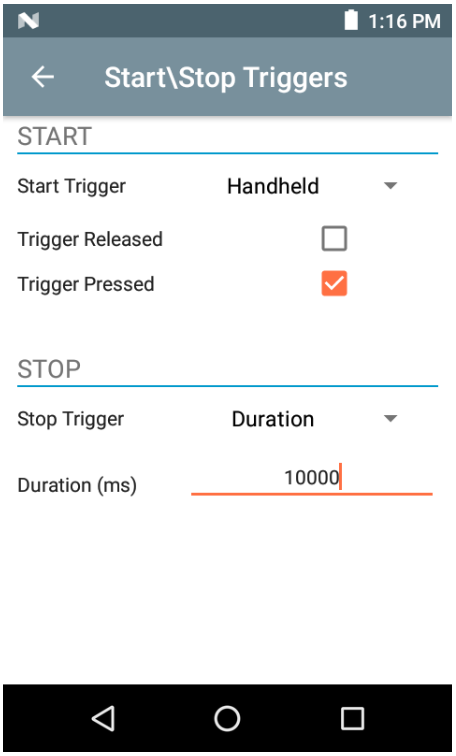
To access the Start\Stop Triggers screen, go to: **Settings** > **Advanced Reader Options** > **Start\Stop Triggers**.

The **Start Trigger** Periodic displays the Period input box (in milliseconds).

The **Stop Trigger Duration**, **Tag Observation** and **N attempts** display numeric value input boxes. All time entries are in milliseconds.

All the required details for saving triggers to the reader must be entered or the application does not save the trigger settings to the reader.

Figure 62 Start/Stop Triggers Screen



Start Trigger Handheld

Trigger Released ☐

Trigger Pressed ☑

Stop Trigger Duration

Duration (ms) 10000

Required input for Start/Stop Trigger settings are as follows:

- **Start Trigger**
  - **Immediate** (default)
  - **Hand-held** - Select either the **Trigger Pressed** or **Trigger Released** check box.
  - **Periodic** - Enter the period of time in milliseconds.
- **Stop Trigger**
  - **Immediate** (default)
  - **Hand-held** - Select either the **Trigger Pressed** or **Trigger Released** check box along with **Timeout** in milliseconds.
  - **Duration** - Enter duration in milliseconds.
  - **Tag Observation** - Enter the tag count along with timeout in milliseconds.
  - **N Attempts** - Enter the number of attempts along with timeout in milliseconds.

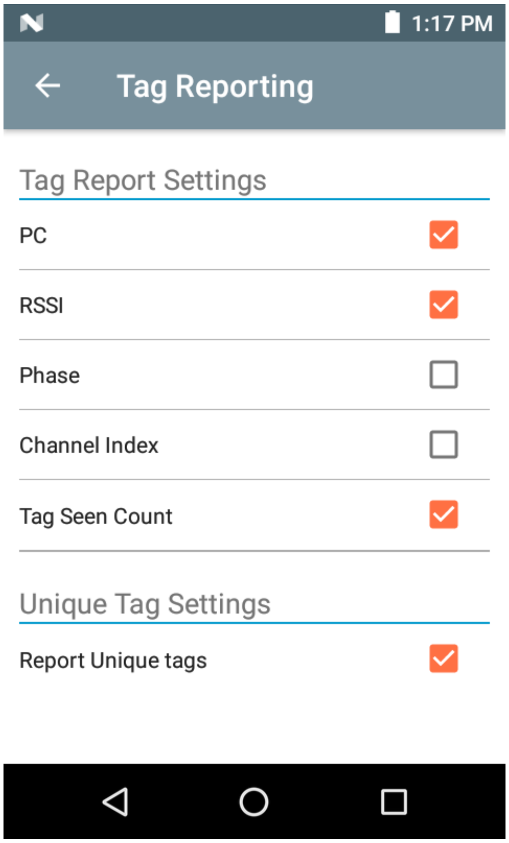
If the start trigger type is Hand-held trigger (pressed or released), the application sets the repeat for the operation to ensure the use case if repeated operations can be demonstrated.

if any trigger is defined as Hand-held, then the application does not act on immediate trigger type for a Hand-held trigger action.

Tag Reporting

To access Tag Reporting, go to: **Settings** > **Advanced Reader Options** > **Tag Reporting**.

Figure 63 Tag Reporting Screen



Tag Reporting

Tag Report Settings

PC ☑

RSSI ☑

Phase ☐

Channel Index ☐

Tag Seen Count ☑

Unique Tag Settings

Report Unique tags ☑

Table 13 Tag Reporting Screen Options

Option	Description
PC	Select to allow reporting the PC as part of the Tag Data.
RSSI	Selection indicates whether or not the RSSI (Received Signal Strength Indication) is reported as part of the Tag Data.
Phase	Select to indicate whether or not the Phase is reported as part of the Tag Data.
Channel Index	Select to indicate whether or not the Regulatory Channel Index is reported as part of the Tag Data.
Tag Seen Count	Select to indicate whether or not the Tag Seen Count is reported as part of the Tag Data.
Report Unique Tags	When this option is enabled, the reader reports only unique tag reads.The Unique Tag reporting feature can be enabled when using Tag List Match mode.

Power Management

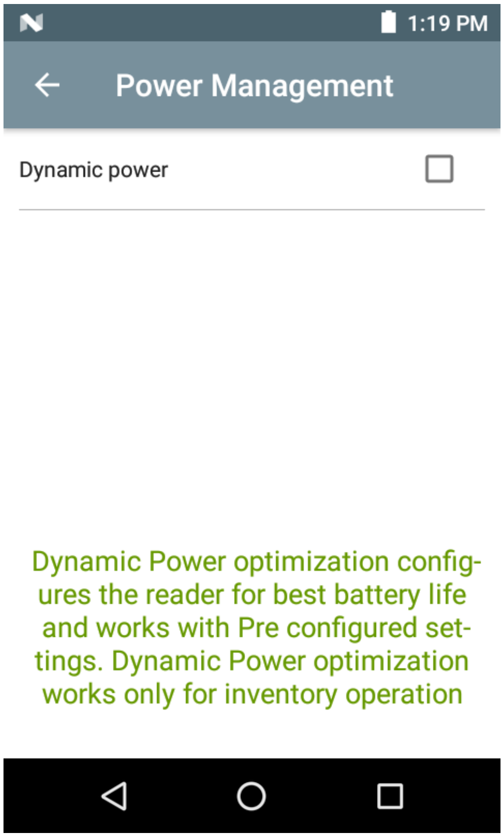
This screen provides an option to enable **Dynamic Power Optimization (DPO)** in the reader. Enabling DPO enhances battery life during inventory operations.

NOTE: **DPO** is enabled by default. It is not necessary to disable DPO when executing access operations or using filters because DPO is automatically disabled and when the operation is complete, it is automatically enabled.

If **Dynamic Power** is On, a green battery icon appears in the title bar of the application. Tapping on this opens the **Battery Status** screen.

To access Power Management, go to: **Settings** > **Advanced Reader Options** > **Power Management**.

Figure 64 Power Management Screen



Dynamic power ☐

Dynamic Power optimization configures the reader for best battery life and works with Pre configured settings. Dynamic Power optimization works only for inventory operation

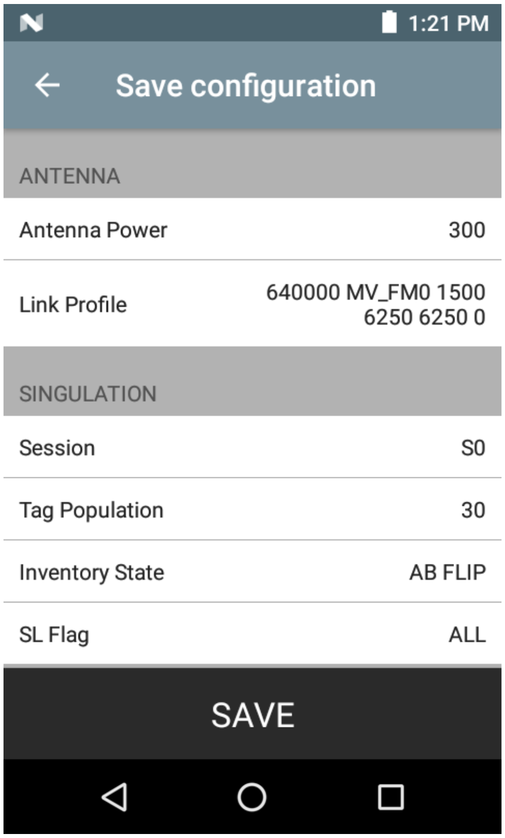
Save Configuration

To access Save Configuration, go to: **Settings** > **Advanced Reader Options** > **Save Configuration**. This screen is used to save the settings and displays the current settings on the MC3300R.

The settings are saved on MC3300R until a reset to factory defaults is performed on the unit (see Settings on page 74).

The Tag Pattern area is automatically filled in when a tag is selected in the Inventory screen.

Figure 65 Save Configuration Screen



ANTENNA

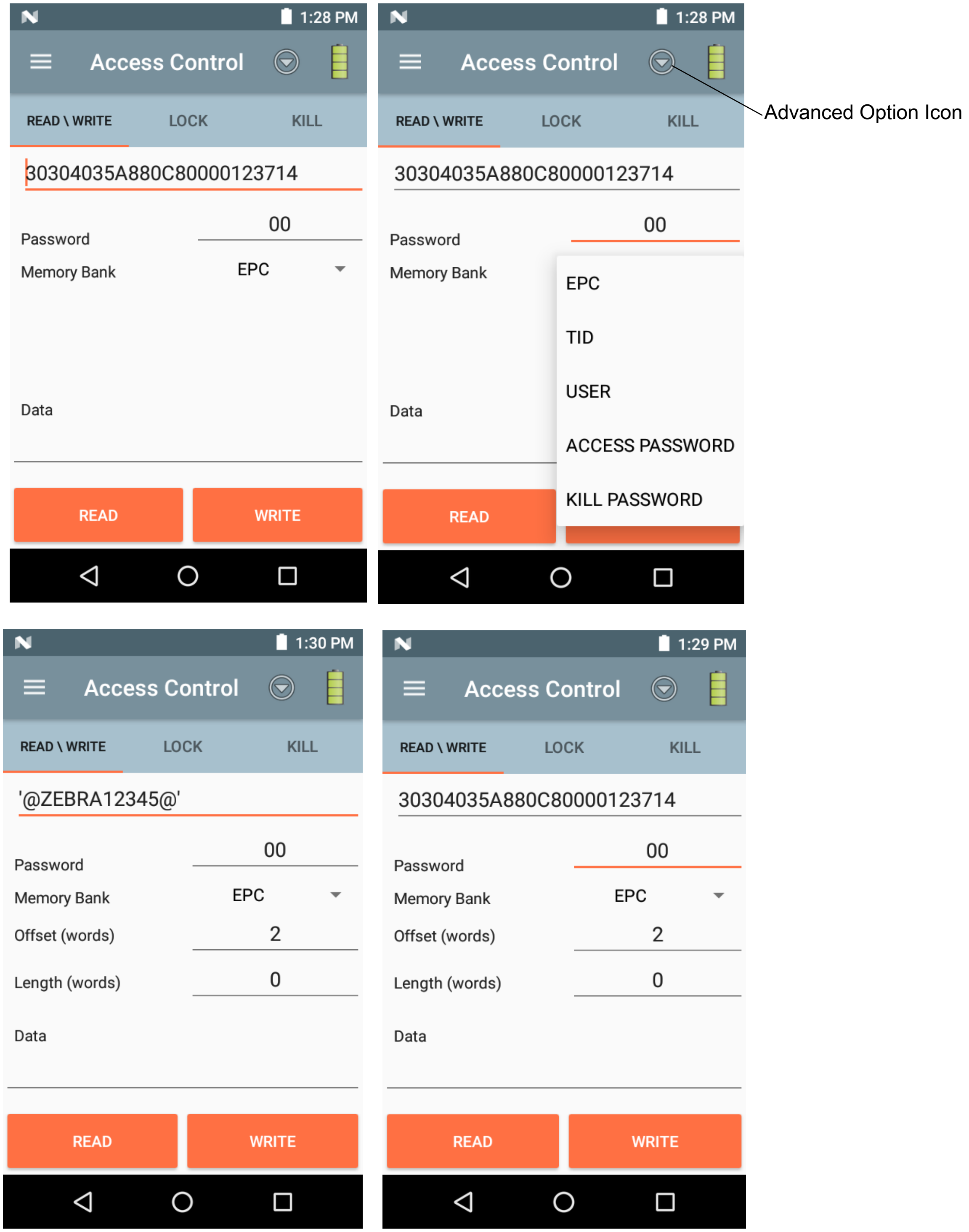
Antenna Power	300
Link Profile	640000 MV_FM0 1500 6250 6250 0

SINGULATION

Session	S0
Tag Population	30
Inventory State	AB FLIP
SL Flag	ALL

Access Control

Figure 66 Access Control Screens - Read/Write, Lock, Kill



1:28 PM
Access Control
READ \ WRITE
LOCK
KILL
READ
WRITE
1:28 PM
Access Control
READ \ WRITE
LOCK
KILL
EPC
TID
USER
ACCESS PASSWORD
KILL PASSWORD
READ
1:30 PM
Access Control
READ \ WRITE
LOCK
KILL
READ
WRITE
1:29 PM
Access Control
READ \ WRITE
LOCK
KILL
READ
WRITE

30304035A880C80000123714
Password 00
Memory Bank EPC
Data

30304035A880C80000123714
Password 00
Memory Bank
Data

'@ZEBRA12345@'
Password 00
Memory Bank EPC
Offset (words) 2
Length (words) 0
Data

30304035A880C80000123714
Password 00
Memory Bank EPC
Offset (words) 2
Length (words) 0
Data

Advanced Option Icon

The Tag Pattern area is automatically filled in when a tag is selected in the Inventory screen.

Read/Write

The Read/Write access operation is simplified with offset and length fields are hidden, the user can tap the more/advanced options icon to see offset and length fields. Tap the icon again to hide the advanced options.

Memory Bank options now have extended menu options to choose directly interested area of memory bank. This avoids typing of offset and length etc.

Read/Write options are:

- Tag ID & **Password** values are in hex. Tag ID is edited
- **Memory Bank options** - EPC, TID, USER, PC and CRC, Access Password, Kill Password
- **Offset** and **Length** values are in 16-bit words. This is only available after tapping the **Advance Options** icon. To toggle visibility, tap **Advanced Options** again.
- **Access operation** screen maintains edited tag ID.

Lock

Lock privilege options are as follows:

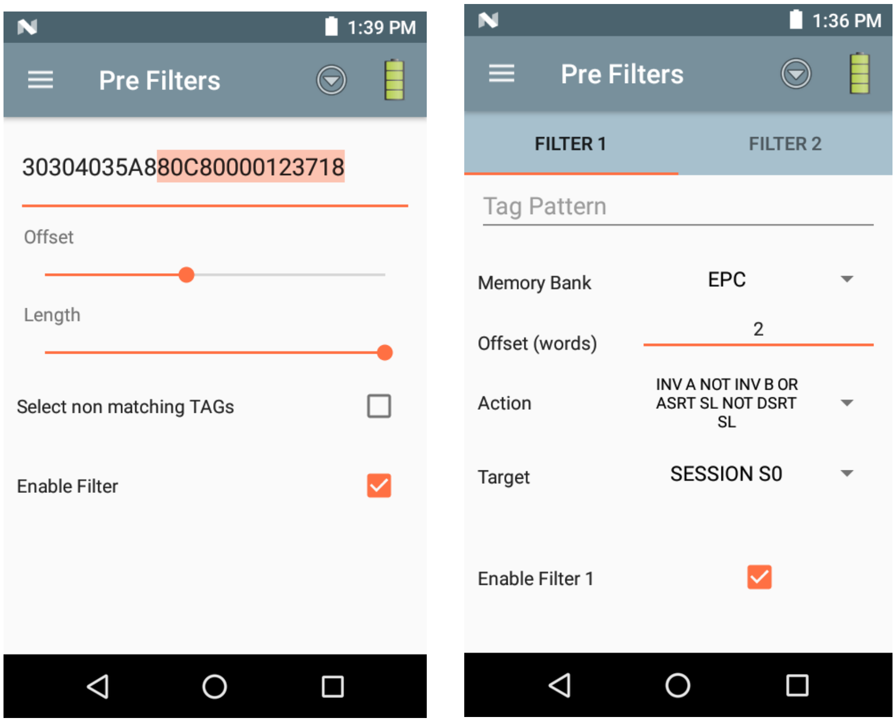
- **Read and Write**
- **Permanent Lock**
- **Permanent Unlock**
- **Unlock**.

Kill

Permanently renders the tag unusable. A **Kill Password** must be provided.

Pre Filters

Figure 67 Pre Filters Screen



30304035A880C80000123718

Offset

Length

Select non matching TAGs ☐

Enable Filter ☑

Tag Pattern

Memory Bank EPC

Offset (words) 2

Action INV A NOT INV B OR ASRT SL NOT DSRT SL

Target SESSION S0

Enable Filter 1 ☑

The **Pre Filters** screen is simplified with Tag pattern (EPC ID) and enable filter option. Tap the more/advanced icon to get full control of various fields related to pre filters. Tap the icon again to hide the advanced options.

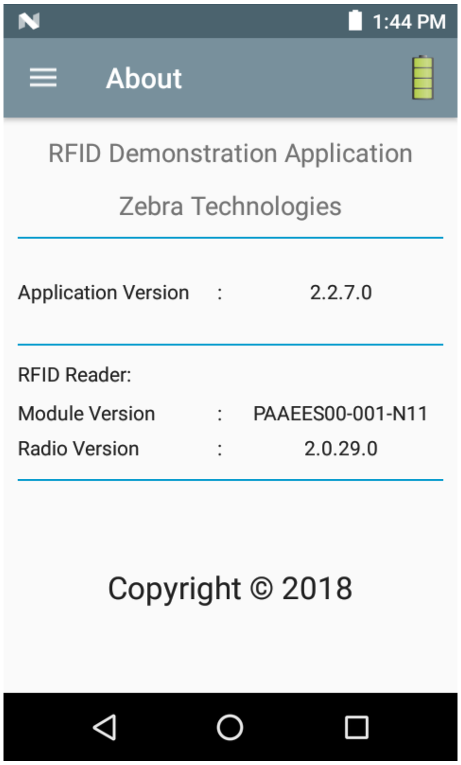
Up to two of the following Pre Filters may be enabled.

- **Memory Bank** - EPC, TID and USER.
- **Offset** - The offset in the memory bank is specified in words.
- **Select non matching TAGs** - Inventory shows tags which are not matching with Tag pattern entered.
- **Action**:
  - INV A NOT INV B or ASRT_SL_NOT_DSRT_SL
  - INV A or ASRT SL
  - NOT INV B or NOT DSRT SL
  - INV A2BB2A NOT INV A or NEG SL NOT ASRT SL
  - INV B NOT INV A or DSRT SL NOT ASRT SL
  - INV B or DSRT SL
  - NOT INV A or NOT ASRT SL
  - NOT INV A2BB2A or NOT NEG SL
- **Target** - SESSION S0, SESSION S1, SESSION S2, SESSION S3 & SL FLAG.

About

This screen displays version information as reported by the MC3300R.

Figure 68 About Screen



RFID Demonstration Application

Zebra Technologies

Application Version : 2.2.7.0

RFID Reader:

Module Version : PAAEES00-001-N11

Radio Version : 2.0.29.0

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RFID Manager

Introduction

The Zebra RFID Manager application allows the user the perform various management functions on the RFID reader module in the MC3300R device including firmware update, power control for the RFID Radio, resetting the RFID module to factory defaults, and various other functions.

NOTE: Some screens shown in this guide may differ from the actual screens shown on the device. Screens are subject to change with future releases.

Using the RFID Manager for Android

To use this application for RFID operations:

1. Launch the RFID Manager application for Android on the mobile device.
2. During initial use, set the region in which the device is operating. To set the region, open the application and select **Settings** > **Regulatory**.

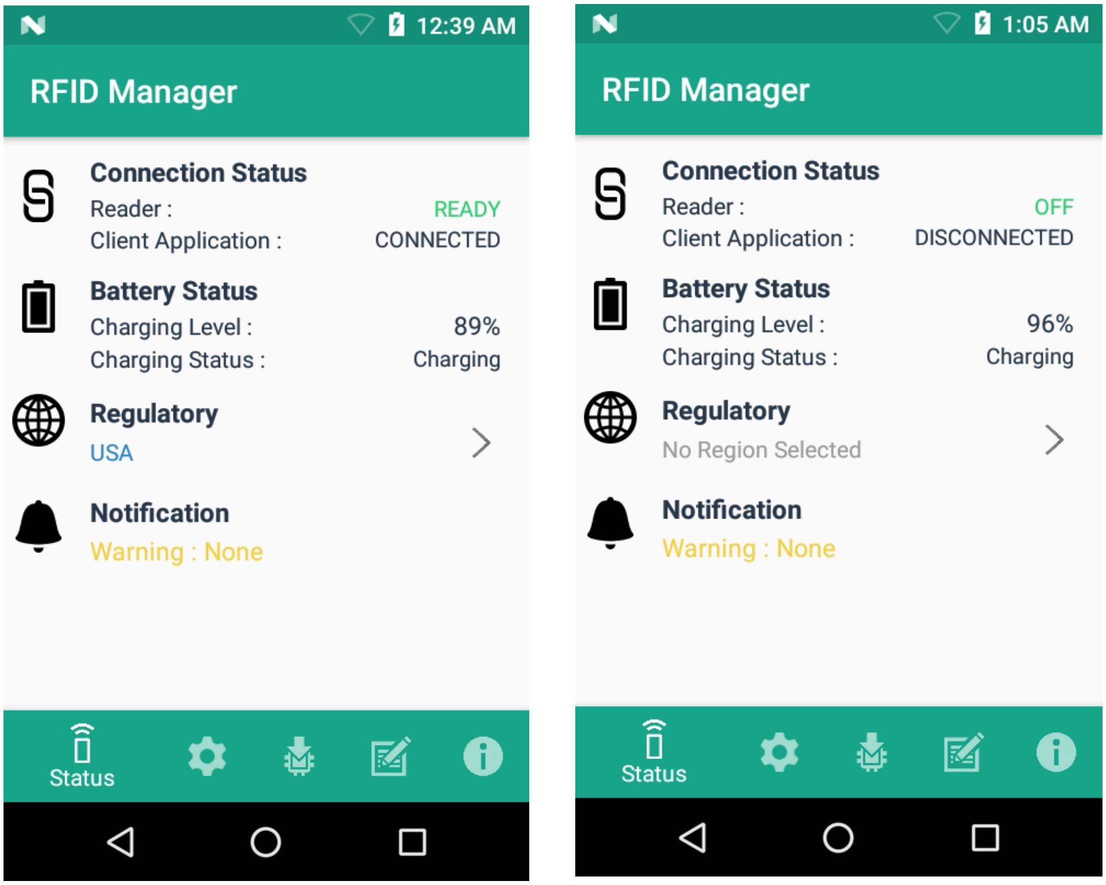
NOTE: If the RFID Demo application or partner application is connected to the MC3300R, the RFID Manager can still perform all management functions, however care should be used as to not interfere with any ongoing operational behavior of the device (e.g., inventory, setting parameters, etc.).

Connection Status

Reader Status

By default, the RFID Reader is powered on and in the **Ready**. If the MC3300R RFID Radio is not powered on, the Reader Status displays **Off**.

Figure 69 Reader Connection Status Screens


12:39 AM
RFID Manager
Status

Connection Status
Reader : READY
Client Application : CONNECTED

Battery Status
Charging Level : 89%
Charging Status : Charging

Regulatory
USA

Notification
Warning : None

1:05 AM
RFID Manager
Status

Connection Status
Reader : OFF
Client Application : DISCONNECTED

Battery Status
Charging Level : 96%
Charging Status : Charging

Regulatory
No Region Selected

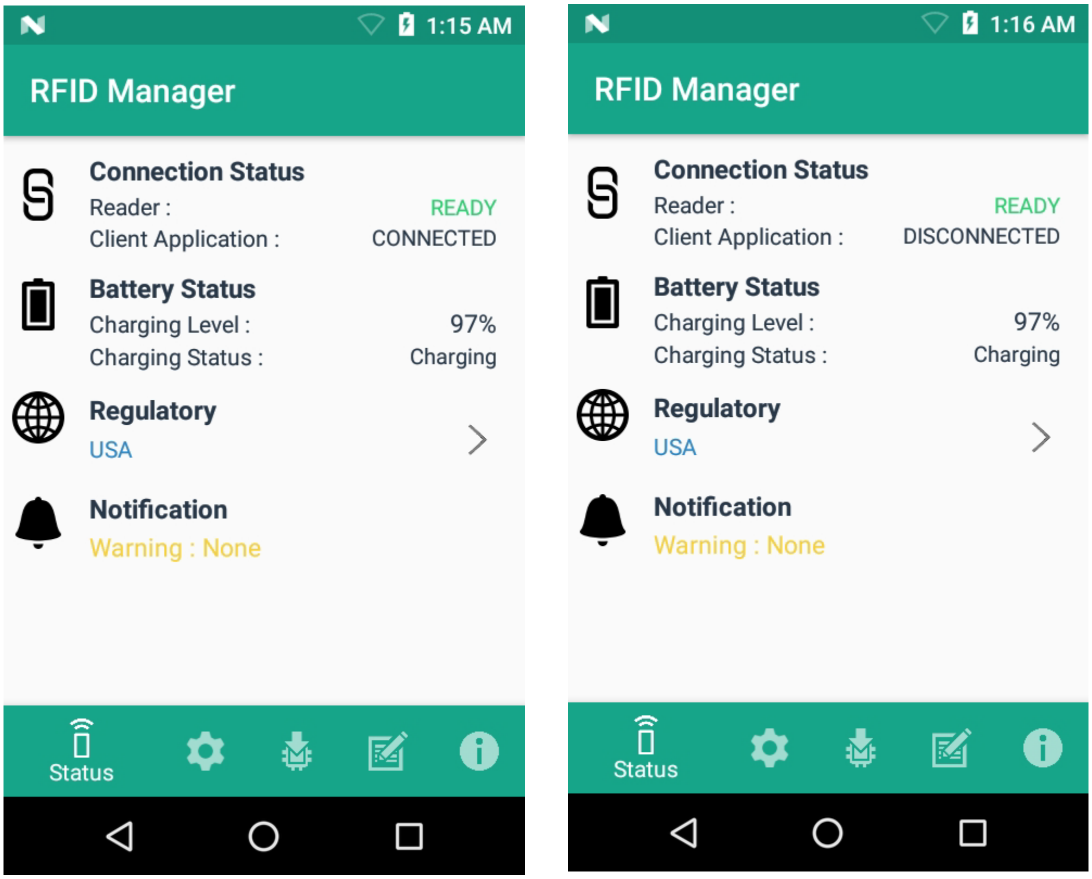
Notification
Warning : None

Client Application Status

If the MC3300R RFID Reader Status is **Ready**:

1. Launch the application manually.
2. On the **Home** Screen under **Connection Status** > **Client Application**, it indicates if the client application is **Connected** or **Disconnected** to the MC3300R RFID Reader.

Figure 70 Client Application Status Screens



Connection Status
Reader : READY
Client Application : CONNECTED

Battery Status
Charging Level : 97%
Charging Status : Charging

Regulatory
USA

Notification
Warning : None

Connection Status
Reader : READY
Client Application : DISCONNECTED

Battery Status
Charging Level : 97%
Charging Status : Charging

Regulatory
USA

Notification
Warning : None

The **Battery Status** contains the battery **Charging Level** percentage and the **Charging Status** (Charging or Discharging).

RFID Regulatory

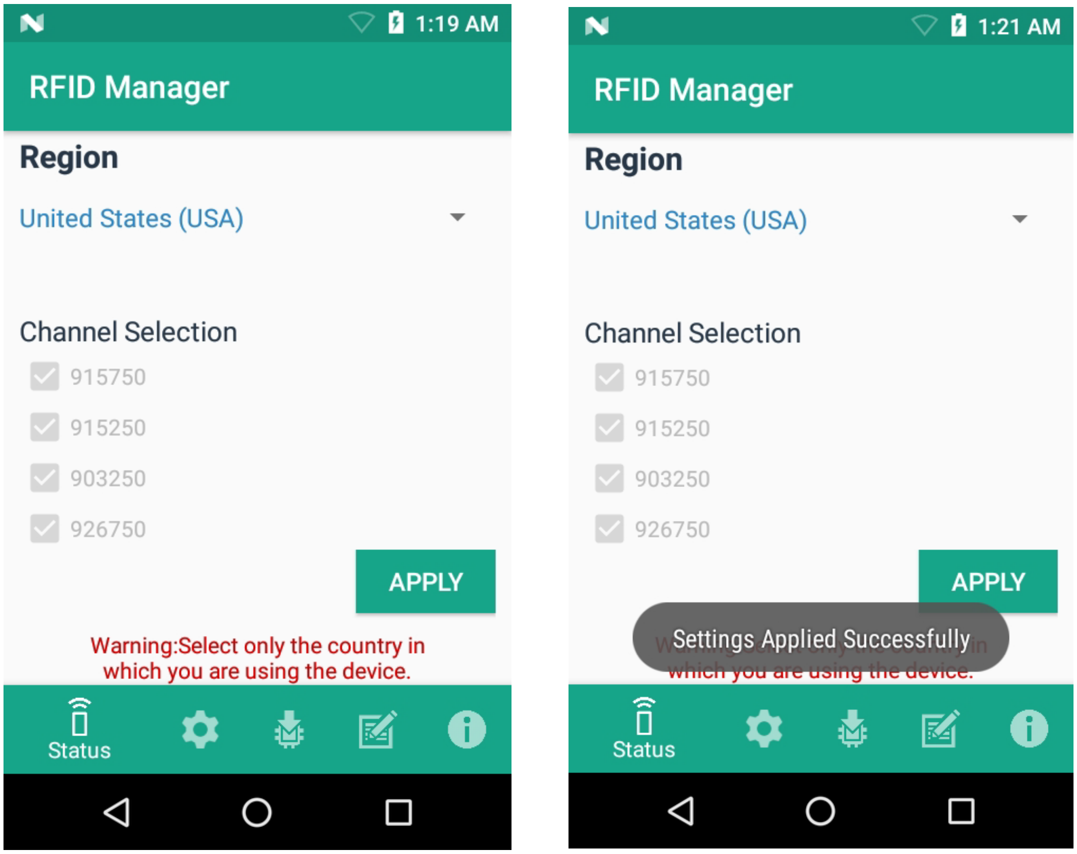
To set the region, select the **Regulatory** arrow button to open the **Regulatory** screen. Select the **Region** and **Channel Selection** settings and tap the **Apply** button. The **Region** drop-down displays the current region to which the device is set. Choose the correct region before using the device.

NOTE: The **Region** and **Channel Selection** requires setup before the initial use only. However, if a **Reset to Factory Defaults** operation is conducted on the MC3300R RFID Reader, the operation removes the **Region** and **Channel** and needs to be set again.

NOTE: Select only the country in which you are using the device.

- **Channel Selection** is allowed only for the regions that allow channel setting.
- Supported regions are those reported by the specific MC3300R Model.
- If the region is not configured on the MC3300R, the Regulatory status shows as NA.
- A customer application can also set the region and configuration programmatically.

Figure 71 Regulatory Screens



Region

United States (USA)

Channel Selection

☑ 915750

☑ 915250

☑ 903250

☑ 926750

Warning:Select only the country in which you are using the device.

Settings Applied Successfully

Settings

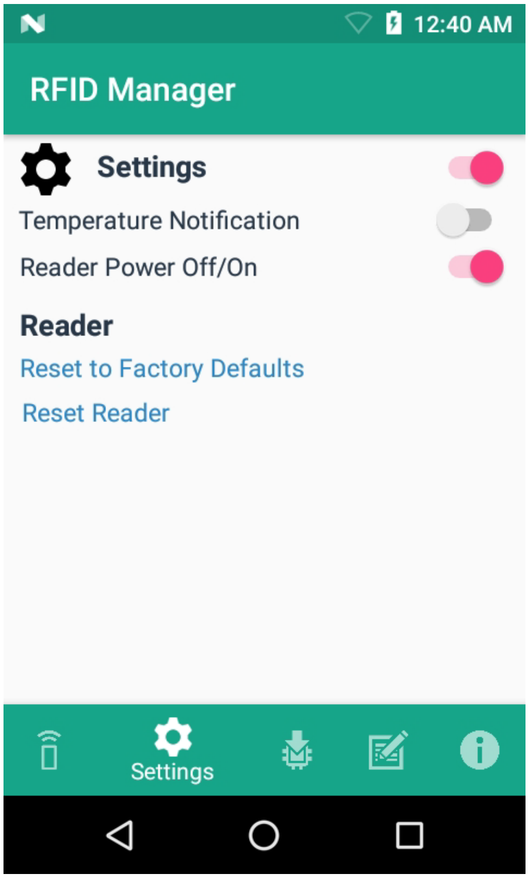
To display Settings, select the **Settings** icon located on the bottom tool bar.

Turn on the **Settings** slider switch control to enable control of setting options.

Setting options are as follows:

- **Temperature Notification** – If enabled, a temperature high and critical notification appears with temperature level indications.
- **Reader Power Off/On** - If enabled, the MC3300R RFID Radio is powered on. When the MC3300R RFID radio is powered off, no RFID operations are supported.

Figure 72 Settings Screen



12:40 AM
RFID Manager
Settings

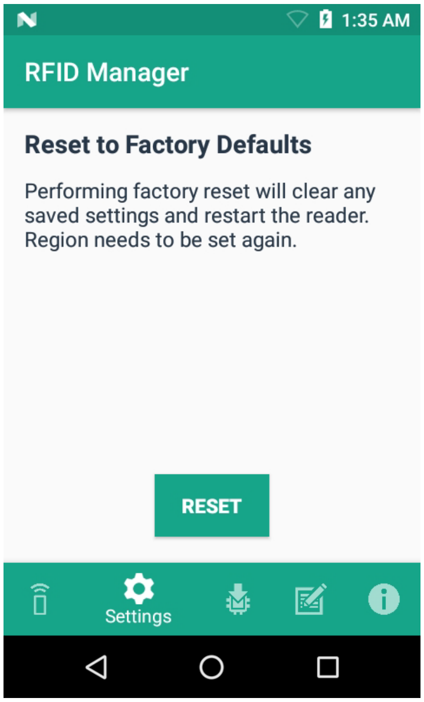
Temperature Notification ○

Reader Power Off/On ●

Reader
Reset to Factory Defaults
Reset Reader
Settings

- **Reset to Factory Defaults** - Select **Reset to Factory Defaults** to reset all configuration and region settings to factory default settings. When selected, the RFID reader internally reboots and a window message displays after successful operation.

Figure 73 Reset to Factory Defaults Screen

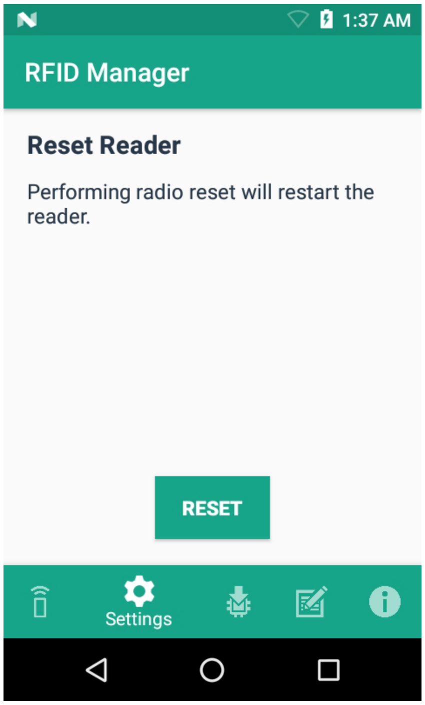


Reset to Factory Defaults

Performing factory reset will clear any saved settings and restart the reader. Region needs to be set again.

- **Reset Reade**r - Select **Reset Reader** to perform a reader restart. When selected, the reader reboots and a window message displays after successful operation. Reader status confirmation is located under **Home** > **Status**.

Figure 74 Reader Reset Screen



Reset Reader

Performing radio reset will restart the reader.

Firmware Update

A product code update, bootloader, and radio update may be performed using the firmware update screen.

NOTE: More than 15% battery level is required to perform a Firmware Update.

To perform a firmware update:

1. Copy the RFD file into the MC3300R SD card. One method is through the abd command (abd push <firmware>/sdcard).

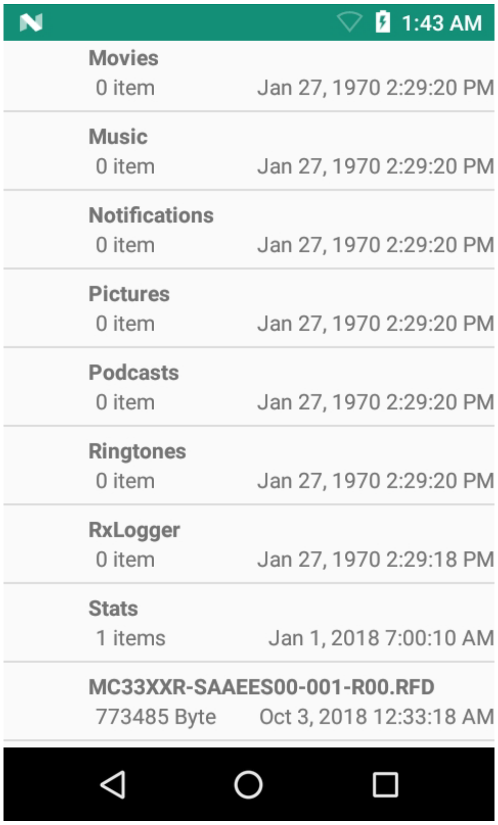
   NOTE: The MC3300R must have USB Debugging enabled in Developer Options for adb commands to work properly.

2. Browse for the firmware RFD file, by clicking on the folder icon.

   NOTE:

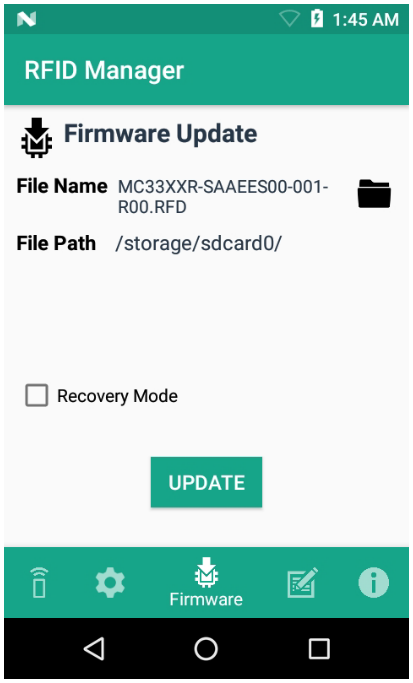
3. Select the required RFD file, from **File View** menu. When the file is selected, the application returns to update screen.

Figure 75 Transferring Files for Firmware Update


1:43 AM
Movies
0 item
Jan 27, 1970 2:29:20 PM
Music
0 item
Jan 27, 1970 2:29:20 PM
Notifications
0 item
Jan 27, 1970 2:29:20 PM
Pictures
0 item
Jan 27, 1970 2:29:20 PM
Podcasts
0 item
Jan 27, 1970 2:29:20 PM
Ringtones
0 item
Jan 27, 1970 2:29:20 PM
RxLogger
0 item
Jan 27, 1970 2:29:18 PM
Stats
1 items
Jan 1, 2018 7:00:10 AM
MC33XXR-SAAEES00-001-R00.RFD
773485 Byte
Oct 3, 2018 12:33:18 AM

4. Click on the **Update** button.

Figure 76 RFID Manage Firmware Update Screen



1:45 AM
RFID Manager
Firmware Update

File Name MC33XXR-SAAEES00-001-R00.RFD

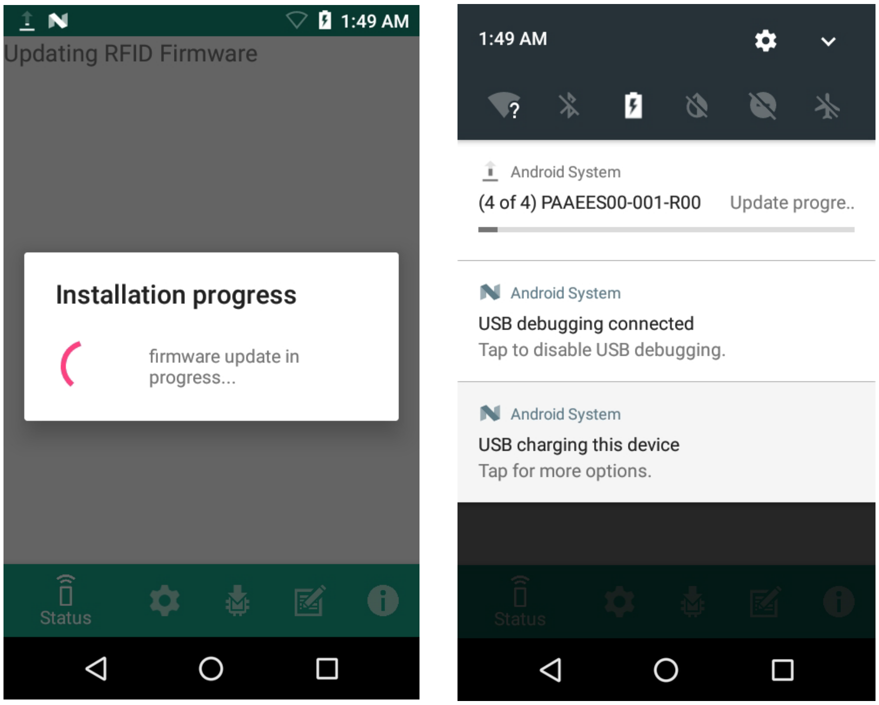
File Path /storage/sdcard0/

☐ Recovery Mode

UPDATE
Firmware

5. Once Update is initiated, a status box displays that the firmware updates is in progress. For more information on the current status of the Firmware update (including a progress bar), refer to the Android Notification bar.
6. After a successful update, a window displays a MC3300R Firmware Installation Complete message.

Figure 77 Firmware Update Progress Window



1:49 AM
Updating RFID Firmware

Installation progress

firmware update in progress...

Status
1:49 AM

Android System
(4 of 4) PAAEES00-001-R00 Update progre..

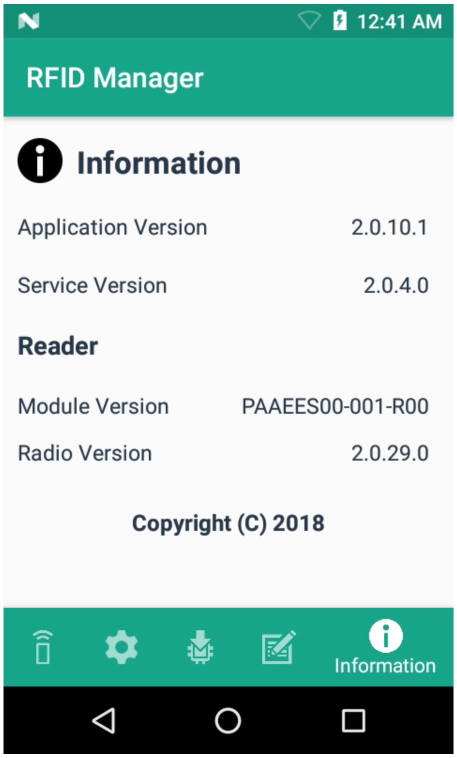
Android System
USB debugging connected
Tap to disable USB debugging.

Android System
USB charging this device
Tap for more options.

Status

The updated firmware information is displayed on the Information screen.

Figure 78 Information Screen



Information

Application Version 2.0.10.1

Service Version 2.0.4.0

Reader

Module Version PAAEES00-001-R00

Radio Version 2.0.29.0

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Recovery Mode

Only select the **Recovery Mode** check box (see Figure 76 on page 101) if the MC3300R firmware is suspected to be corrupted. Contact the Zebra support team to use the Recovery Mode option.

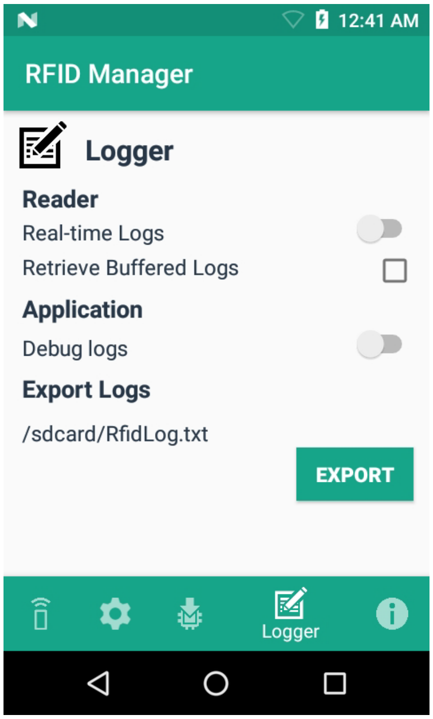
RFID Manager Log

The following options may be enabled to capture reader logs.

- **Real-time Logs** - Captures real time logs from the MC3300R RFID radio.
- **Retrieve Buffered Logs** - Captures the buffered logs from the MC3300R RFID radio.
- **Debug Logs** - Captures RFID System Service debug logs.

NOTE: All three logs can be enabled. If all three logs are disabled, default logs from the application is captured which does not include MC3300R RFID System Service logs.

Figure 79 RFID Manager Logger Screen



12:41 AM

RFID Manager

Logger

Reader

Real-time Logs ○

Retrieve Buffered Logs ☐

Application

Debug logs ○

Export Logs

/sdcard/RfidLog.txt

To capture real time logs:

1. Enable **Real-time logs**.
2. Connect and use the RFID application to create logs.
3. Tap on **Export** to retrieve the real time logs. It is not required to disconnect or exit the RFID application.

The Retrieve Buffered Logs option can only be used if the RFID application is not actively reading or writing RFID tags.

The standard RX Logger application can also be used to get RFIDAPI3 and RFIDSERVICE activity.

Exporting Log Files

To export captured log files, select the **Export** button. The log file is saved as RfidLog.txt at a root of the MC3300R sdcard file system. Retrieve the log file after connecting with PC through adb. RfidLog.txt file is located in the internal storage of the root folder.

StageNow

Introduction

This chapter provides instruction necessary to generate a RFID Firmware update profile and import RFID CSP plug-in into the StageNow application.

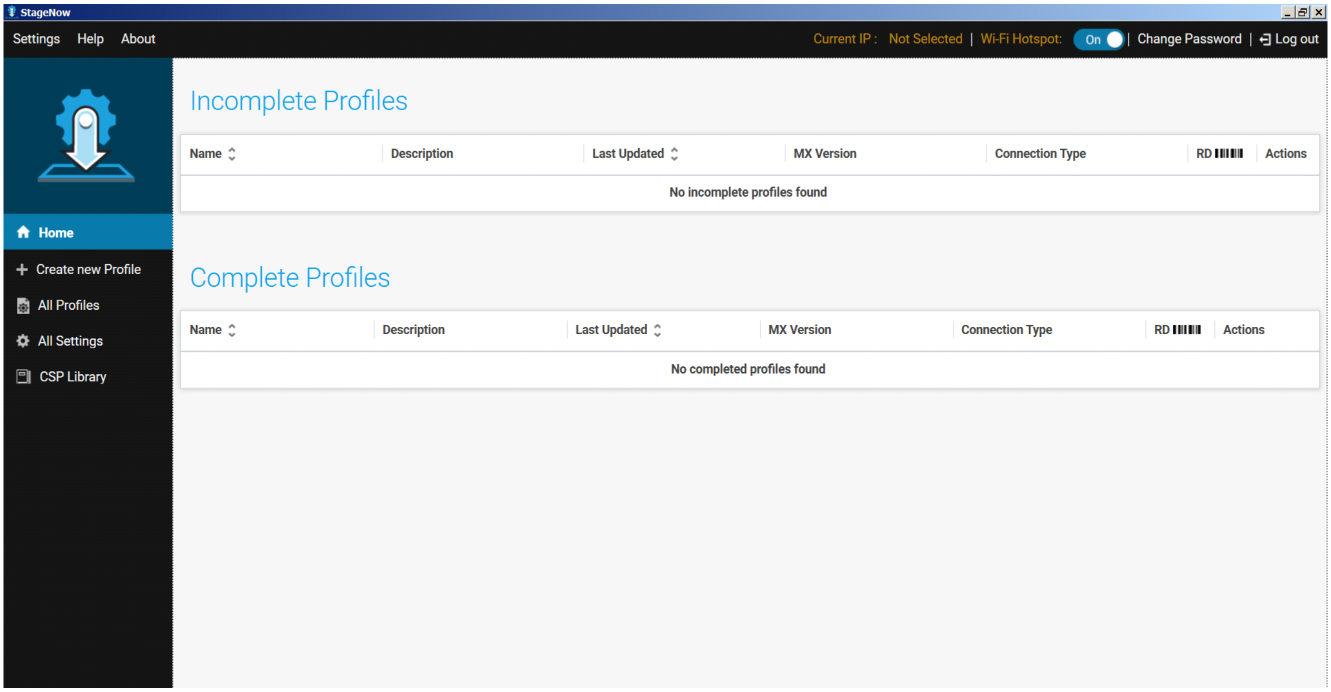
Creating Firmware Update Profile using StageNow

The following provides an example for creating a profile to copy SAADXS00-001-N13.rfd from the staging server to the device and then subsequently updating the firmware.

To create a new update firmware profile:

1. Ensure both the device to be staged and the staging server are connected and accessible through the network.
2. Select **Create New Profile** from the side menu.

Figure 80 Create Firmware Update - CSP Library Screen


StageNow
Settings
Help
About
Current IP : Not Selected
Wi-Fi Hotspot:
On
Change Password
Log out
Home
Create new Profile
All Profiles
All Settings
CSP Library

Incomplete Profiles

Name	Description	Last Updated	MX Version	Connection Type	RD	Actions

No incomplete profiles found

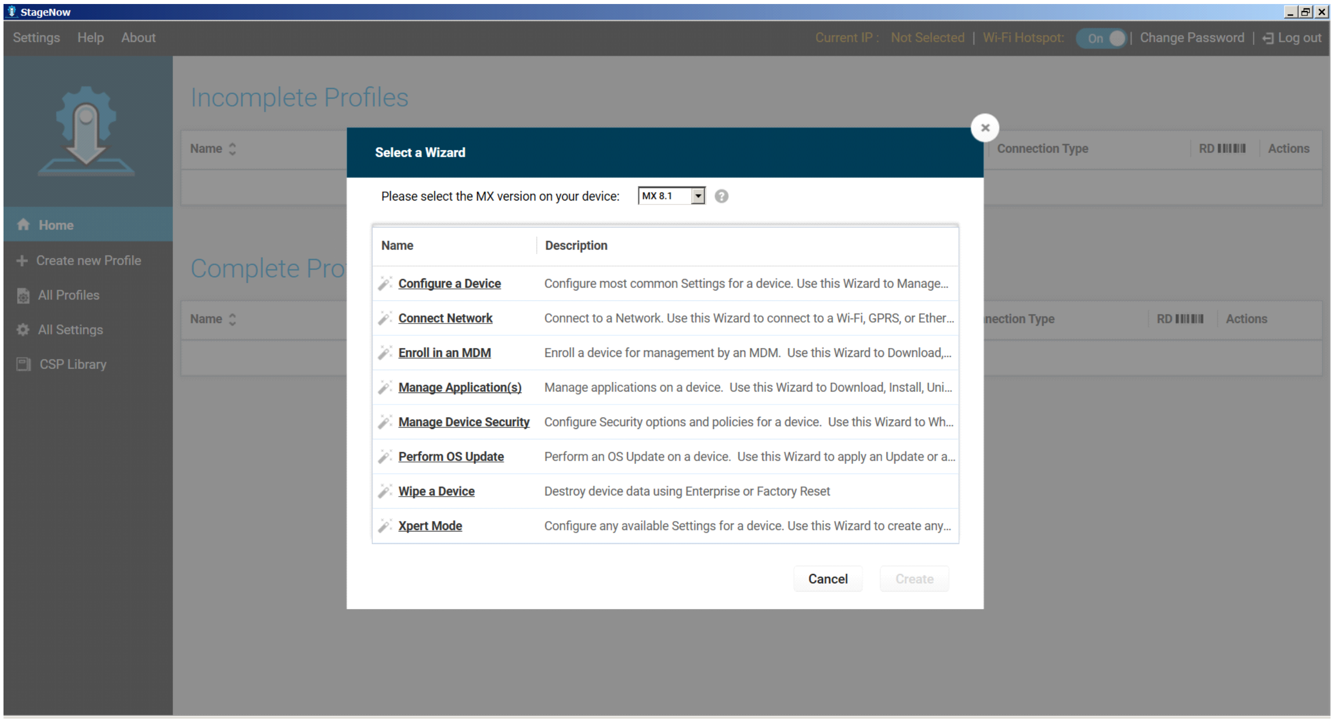
Complete Profiles

Name	Description	Last Updated	MX Version	Connection Type	RD	Actions

No completed profiles found

3. Select **XpertMode** and tap on **Create** from the **Select a Wizard** window.

Figure 81 Wizard Window Selection


StageNow
Settings
Help
About
Current IP : Not Selected | Wi-Fi Hotspot: On | Change Password | Log out
Incomplete Profiles
Name
Connection Type
RD
Actions
Home
Create new Profile
All Profiles
All Settings
CSP Library
Complete Pro
Name
nection Type
RD
Actions
Cancel
Create

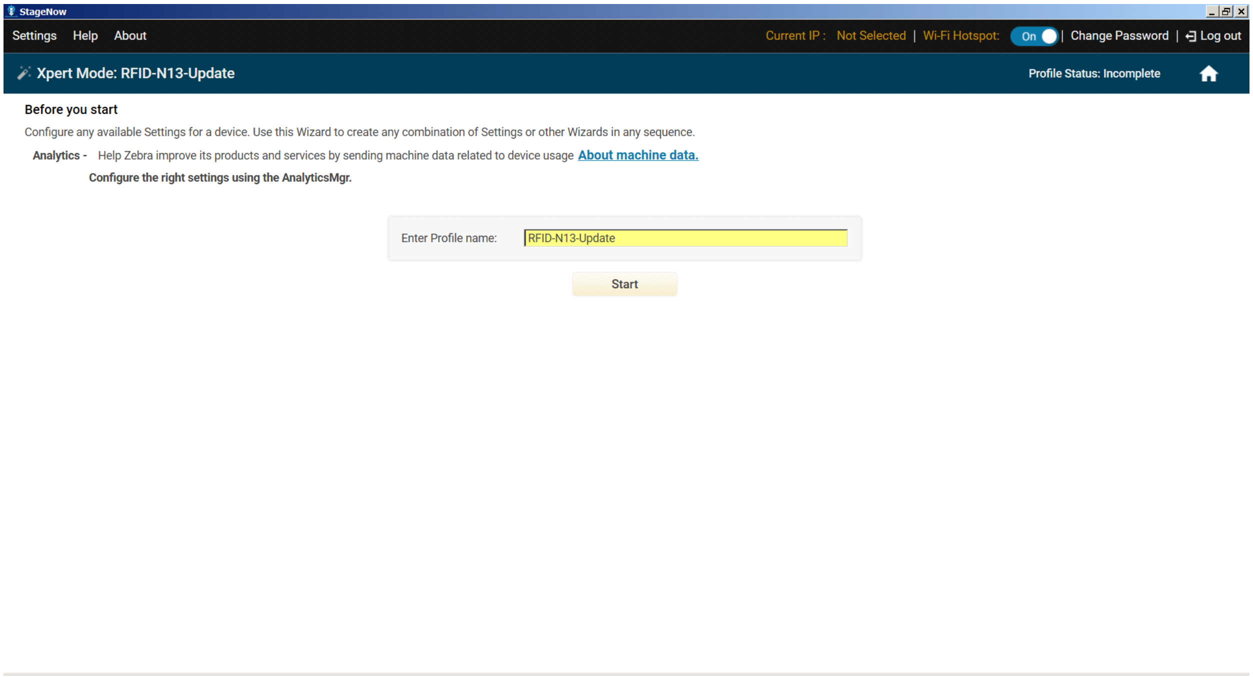
Select a Wizard

Please select the MX version on your device: MX 8.1

Name	Description
Configure a Device	Configure most common Settings for a device. Use this Wizard to Manage...
Connect Network	Connect to a Network. Use this Wizard to connect to a Wi-Fi, GPRS, or Ether...
Enroll in an MDM	Enroll a device for management by an MDM. Use this Wizard to Download,...
Manage Application(s)	Manage applications on a device. Use this Wizard to Download, Install, Uni...
Manage Device Security	Configure Security options and policies for a device. Use this Wizard to Wh...
Perform OS Update	Perform an OS Update on a device. Use this Wizard to apply an Update or a...
Wipe a Device	Destroy device data using Enterprise or Factory Reset
Xpert Mode	Configure any available Settings for a device. Use this Wizard to create any...

4. Enter a new profile name (For example, Rfid-N13-update as shown in Figure 90) and tap on **Start**.

Figure 82 Create Firmware Update - Profile Name


StageNow
Settings
Help
About
Current IP : Not Selected | Wi-Fi Hotspot: On | Change Password | Log out
Start

Xpert Mode: RFID-N13-Update

Profile Status: Incomplete

Before you start

Configure any available Settings for a device. Use this Wizard to create any combination of Settings or other Wizards in any sequence.

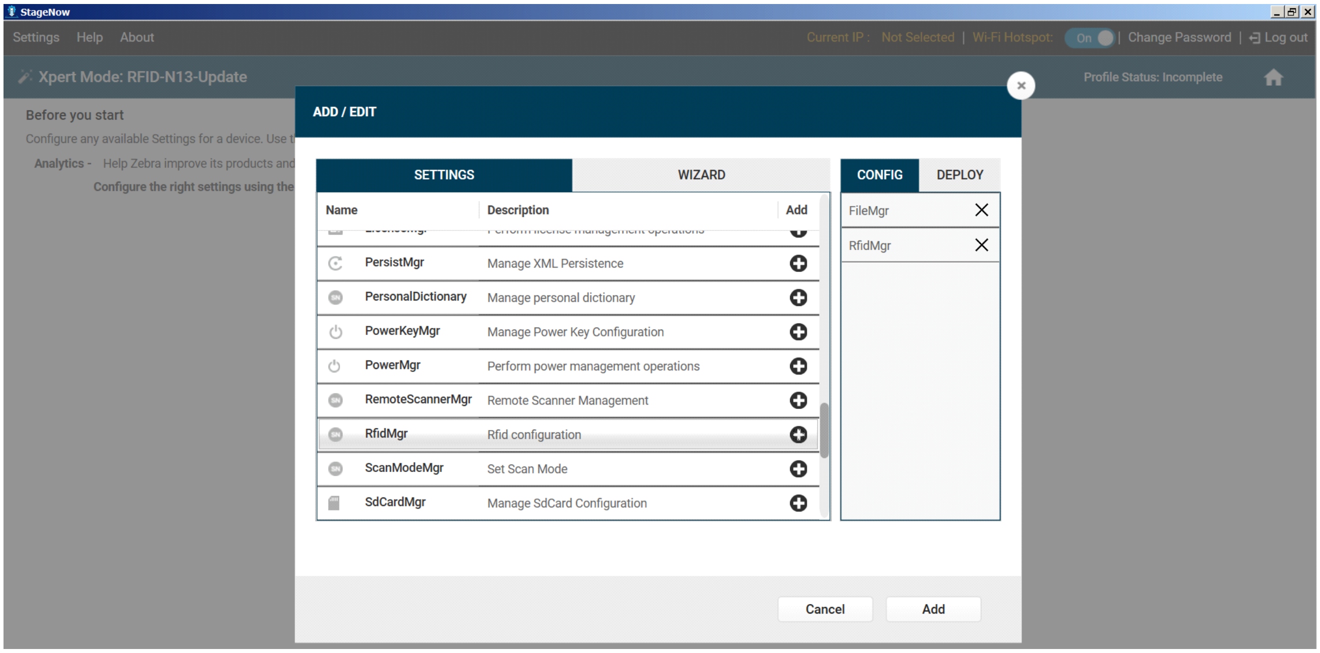
Analytics - Help Zebra improve its products and services by sending machine data related to device usage About machine data.

Configure the right settings using the AnalyticsMgr.

Enter Profile name: RFID-N13-Update

5. Click on **Add** to add the **FileMgr CSP** and **rfidmanager CSP**.

Figure 83 Create Firmware Update - Add Applications

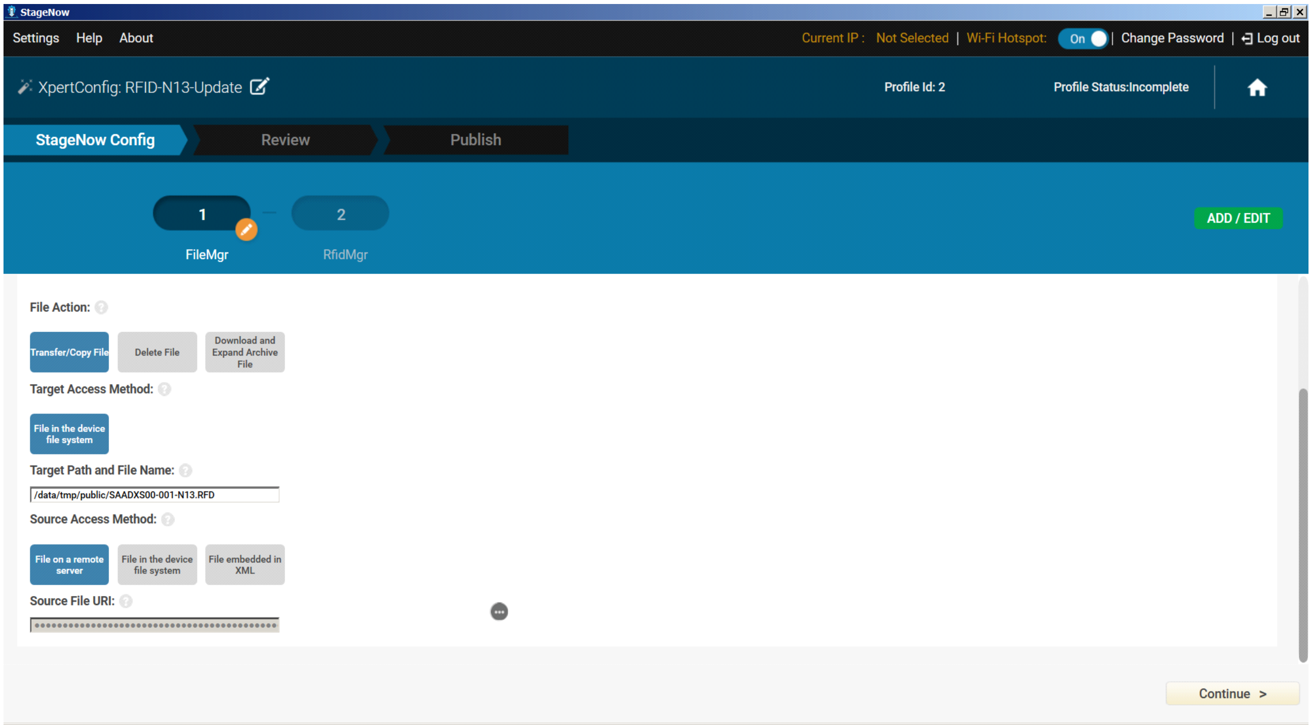

StageNow
Settings
Help
About
Current IP : Not Selected | Wi-Fi Hotspot: On | Change Password | Log out
Xpert Mode: RFID-N13-Update
Profile Status: Incomplete
Before you start
Configure any available Settings for a device. Use t
Analytics - Help Zebra improve its products and
Configure the right settings using the
ADD / EDIT
SETTINGS
WIZARD
CONFIG
DEPLOY
Cancel
Add

Name	Description	Add
PersistMgr	Manage XML Persistence	⊕
PersonalDictionary	Manage personal dictionary	⊕
PowerKeyMgr	Manage Power Key Configuration	⊕
PowerMgr	Perform power management operations	⊕
RemoteScannerMgr	Remote Scanner Management	⊕
RfidMgr	Rfid configuration	⊕
ScanModeMgr	Set Scan Mode	⊕
SdCardMgr	Manage SdCard Configuration	⊕

FileMgr ✕
RfidMgr ✕

6. Enter the **Target Path** (target path in the device) and the **Source File URL** (select the file path in the stagingserver) as shown in Figure 92 and tap **Continue**.

Figure 84 Create Firmware Update - FileMgr Configurations


StageNow
Settings
Help
About
Current IP : Not Selected | Wi-Fi Hotspot: On | Change Password | Log out
XpertConfig: RFID-N13-Update
Profile Id: 2
Profile Status:Incomplete
StageNow Config
Review
Publish
1
FileMgr
2
RfidMgr
ADD / EDIT
Transfer/Copy File
Delete File
Download and Expand Archive File
File in the device file system
File on a remote server
File in the device file system
File embedded in XML
Continue >

File Action: Transfer/Copy File

Target Access Method: File in the device file system

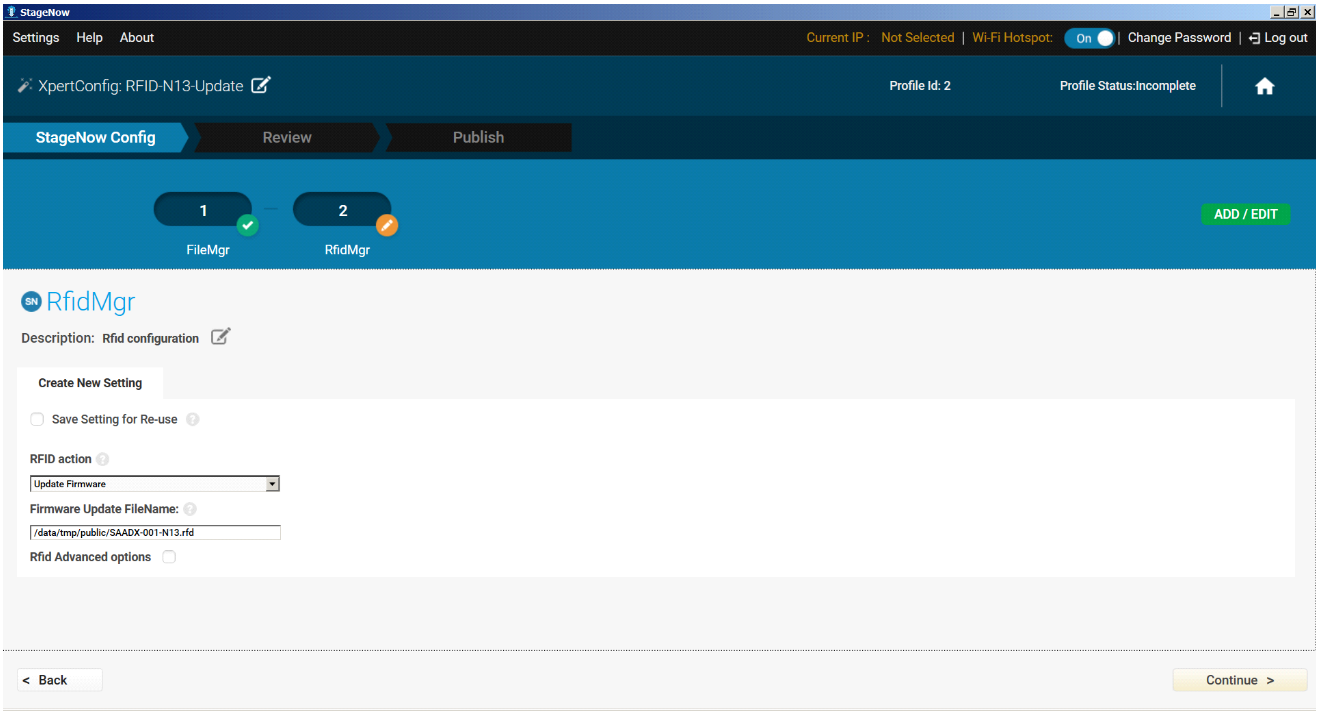
Target Path and File Name: /data/tmp/public/SAADXS00-001-N13.RFD

Source Access Method: File on a remote server

Source File URI: ••

7. Select the **UpdateFirmware** action under RFID action list and enter the Target Path and File Name entered previously (/data/tmp/public/SAADXS00-001-N13D0.rfd) and tap **Continue**.

Figure 85 Create Firmware Update - RfidManager Configuration


StageNow
Settings
Help
About
Current IP : Not Selected | Wi-Fi Hotspot: On | Change Password | Log out
XpertConfig: RFID-N13-Update
Profile Id: 2
Profile Status:Incomplete
StageNow Config
Review
Publish
1
2
FileMgr
RfidMgr
ADD / EDIT
SN
RfidMgr
Back
Continue >

Description: Rfid configuration

Create New Setting

☐ Save Setting for Re-use

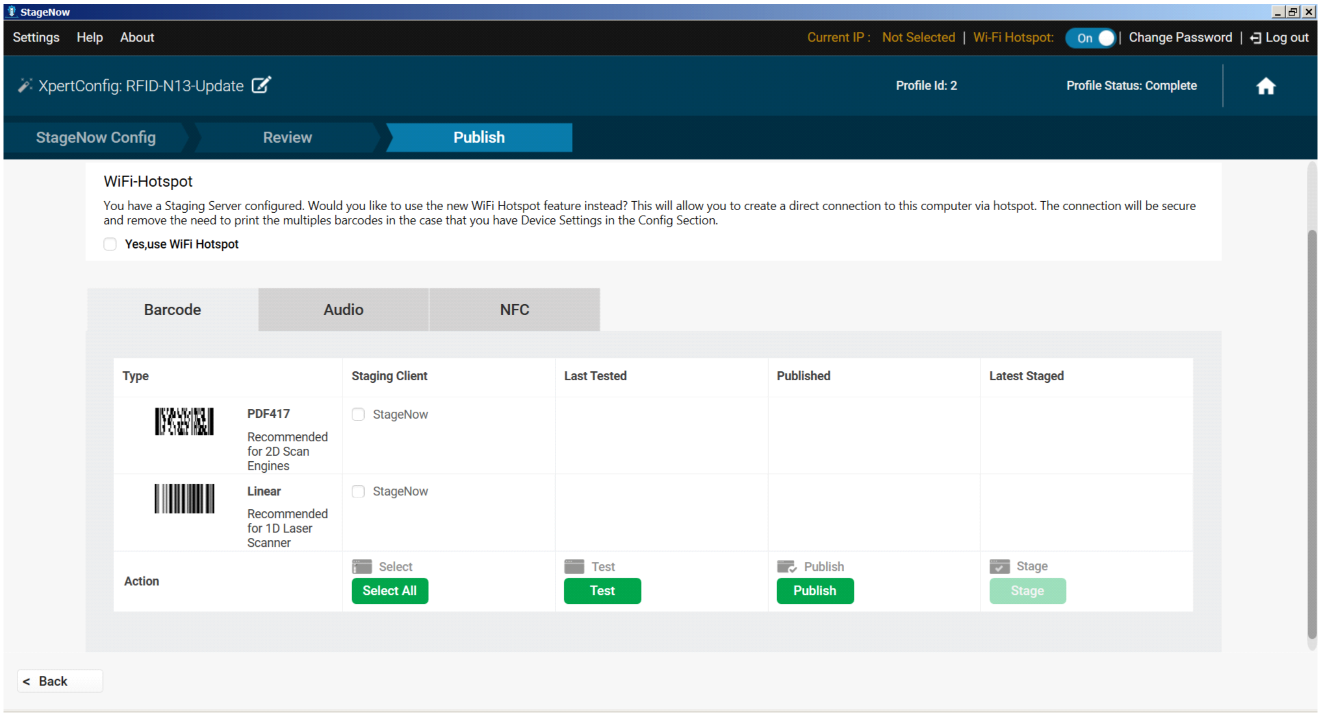
RFID action: Update Firmware

Firmware Update FileName: /data/tmp/public/SAADX-001-N13.rfd

Rfid Advanced options ☐

8. Review your input and tap on **Complete** Profile.
9. Select the **Barcode Type** check box required and click on **Test**.

Figure 86 Create Firmware Update - Barcode selection


StageNow
Settings
Help
About
Current IP : Not Selected | Wi-Fi Hotspot: On | Change Password | Log out
XpertConfig: RFID-N13-Update
Profile Id: 2
Profile Status: Complete
StageNow Config
Review
Publish
Barcode
Audio
NFC
Back

WiFi-Hotspot

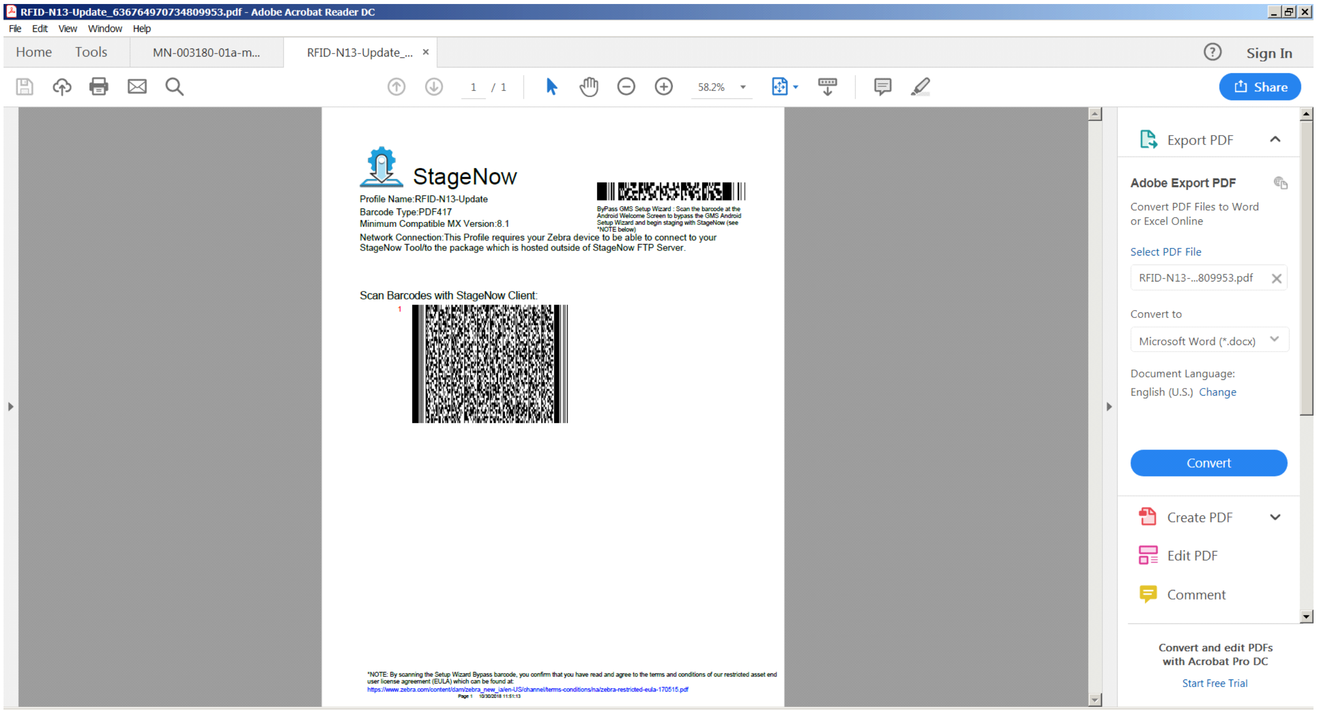
You have a Staging Server configured. Would you like to use the new WiFi Hotspot feature instead? This will allow you to create a direct connection to this computer via hotspot. The connection will be secure and remove the need to print the multiples barcodes in the case that you have Device Settings in the Config Section.

☐ Yes,use WiFi Hotspot

Type	Staging Client	Last Tested	Published	Latest Staged
PDF417 Recommended for 2D Scan Engines	☐ StageNow			
Linear Recommended for 1D Laser Scanner	☐ StageNow			
Action	Select Select All	Test Test	Publish Publish	Stage Stage

10. The test generates a barcode which can be scanned using the StageNow client on the device to stage the firmware.

Figure 87 Stage Firmware Barcode


RFID-N13-Update_636764970734809953.pdf - Adobe Acrobat Reader DC
File
Edit
View
Window
Help
Home
Tools
MN-003180-01a-m...
RFID-N13-Update_...
Sign In
1 / 1
58.2%
Share
Export PDF
Create PDF
Edit PDF
Comment
Convert
Start Free Trial

StageNow

Profile Name:RFID-N13-Update
Barcode Type:PDF417
Minimum Compatible MX Version:8.1
Network Connection:This Profile requires your Zebra device to be able to connect to your StageNow Tool/to the package which is hosted outside of StageNow FTP Server.

ByPass GMS Setup Wizard : Scan the barcode at the Android Welcome Screen to bypass the GMS Android Setup Wizard and begin staging with StageNow (see *NOTE below)

Scan Barcodes with StageNow Client:

1

*NOTE: By scanning the Setup Wizard Bypass barcode, you confirm that you have read and agree to the terms and conditions of our restricted asset end user license agreement (EULA) which can be found at:
https://www.zebra.com/content/dam/zebra_new_ia/en-US/channel/terms-conditions/na/zebra-restricted-eula-170515.pdf

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Convert PDF Files to Word or Excel Online

Select PDF File
RFID-N13-...809953.pdf

Convert to
Microsoft Word (*.docx)

Document Language:
English (U.S.) Change

Convert and edit PDFs with Acrobat Pro DC

Import RFID Manager Into StageNow

Introduction

This chapter provides instruction necessary to generate a RFID Firmware update profile and import RFID CSP plug-in into the StageNow application.

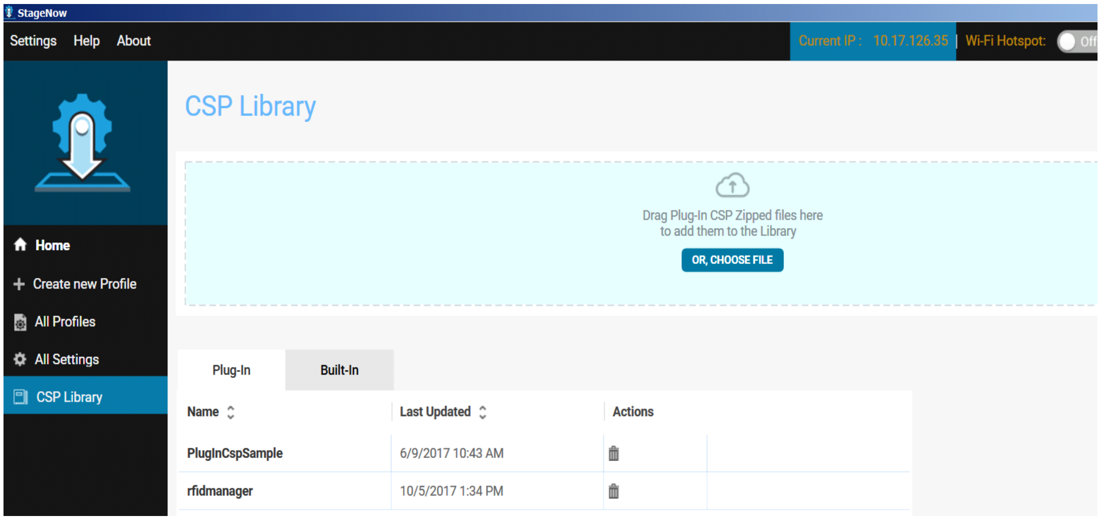
Creating Firmware Update Profile using StageNow

In the following provides an example for creating a profile to copy SAADXS00-001-N10D0.DAT from the staging server to the device and then subsequently updating the firmware.

To create a new update firmware profile:

1. Ensure both the device to be staged and the staging server are connected and accessible through the network.

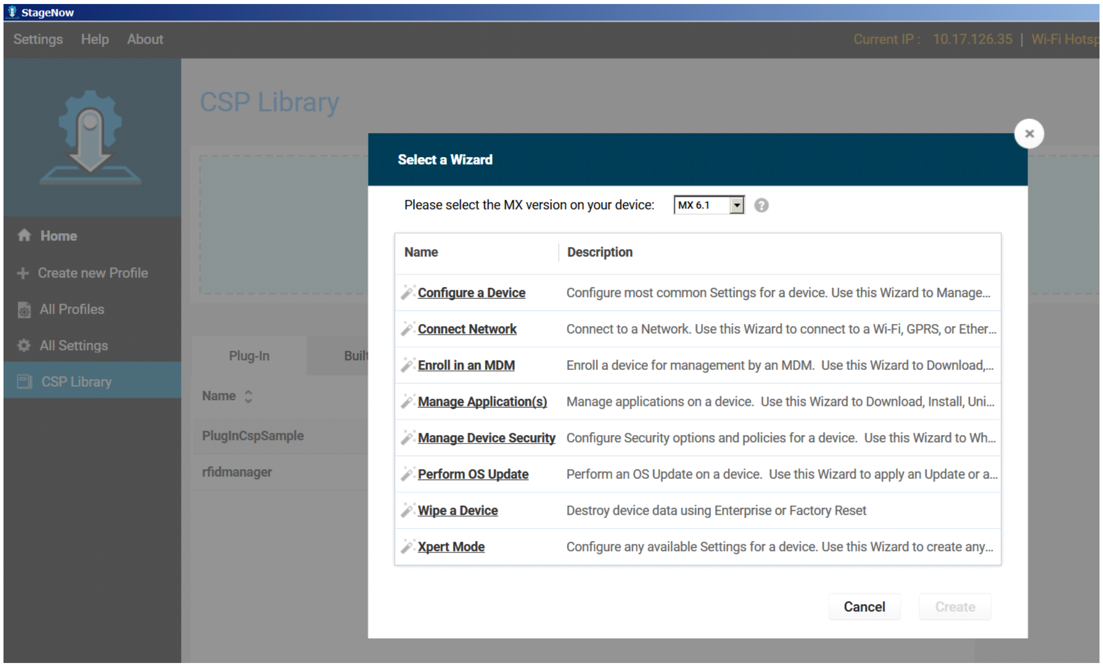
Figure 88 Create Firmware Update-CSP Library Screen


StageNow
Settings
Help
About
Current IP : 10.17.126.35
Wi-Fi Hotspot:
Off
CSP Library
Drag Plug-In CSP Zipped files here to add them to the Library
OR, CHOOSE FILE
Home
Create new Profile
All Profiles
All Settings
CSP Library
Plug-In
Built-In

Name	Last Updated	Actions
PlugInCspSample	6/9/2017 10:43 AM	🗑
rfidmanager	10/5/2017 1:34 PM	🗑

2. Select **Create New Profile** from the side menu.
3. Select **XpertMode** and tap on **Create** from the Select a Wizard window.

Figure 89 Wizard Window Selection


StageNow
Settings
Help
About
Current IP : 10.17.126.35 | Wi-Fi Hotsp
CSP Library
Home
Create new Profile
All Profiles
All Settings
CSP Library
Plug-In
Buil
Name
PlugInCspSample
rfidmanager
Cancel
Create

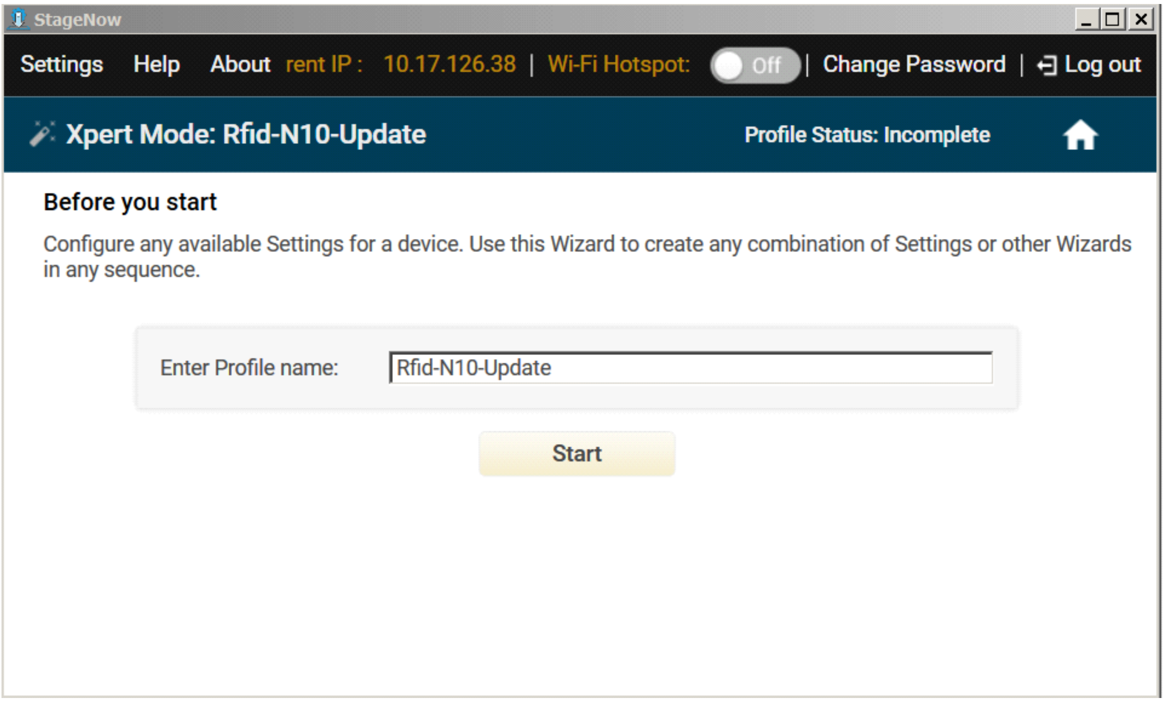
Select a Wizard

Please select the MX version on your device: MX 6.1

Name	Description
Configure a Device	Configure most common Settings for a device. Use this Wizard to Manage...
Connect Network	Connect to a Network. Use this Wizard to connect to a Wi-Fi, GPRS, or Ether...
Enroll in an MDM	Enroll a device for management by an MDM. Use this Wizard to Download,...
Manage Application(s)	Manage applications on a device. Use this Wizard to Download, Install, Uni...
Manage Device Security	Configure Security options and policies for a device. Use this Wizard to Wh...
Perform OS Update	Perform an OS Update on a device. Use this Wizard to apply an Update or a...
Wipe a Device	Destroy device data using Enterprise or Factory Reset
Xpert Mode	Configure any available Settings for a device. Use this Wizard to create any...

4. Enter a new profile name (For example, Rfid-N10-update as shown in Figure 90) and tap on **Start**.

Figure 90 Create Firmware Update-Profile Name


StageNow
Settings
Help
About
rent IP : 10.17.126.38
Wi-Fi Hotspot:
Off
Change Password
Log out
Xpert Mode: Rfid-N10-Update
Profile Status: Incomplete
Start

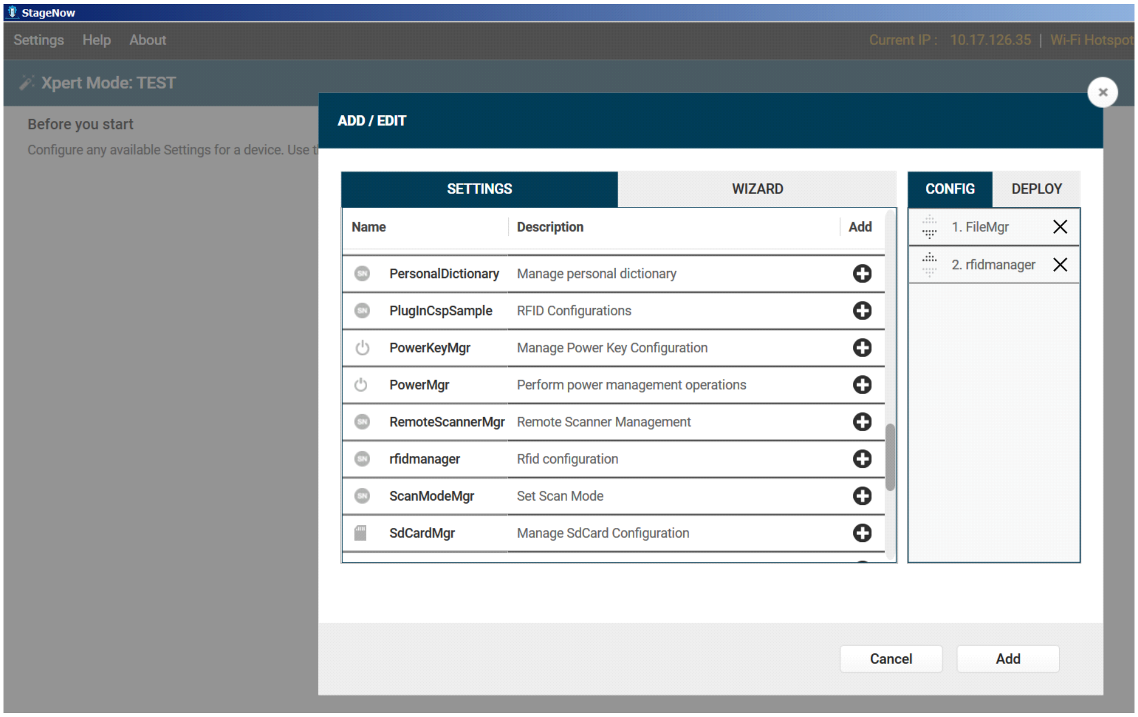
Before you start

Configure any available Settings for a device. Use this Wizard to create any combination of Settings or other Wizards in any sequence.

Enter Profile name: Rfid-N10-Update

5. Click on **Add** to add the **FileMgr CSP** and **rfidmanager CSP**.

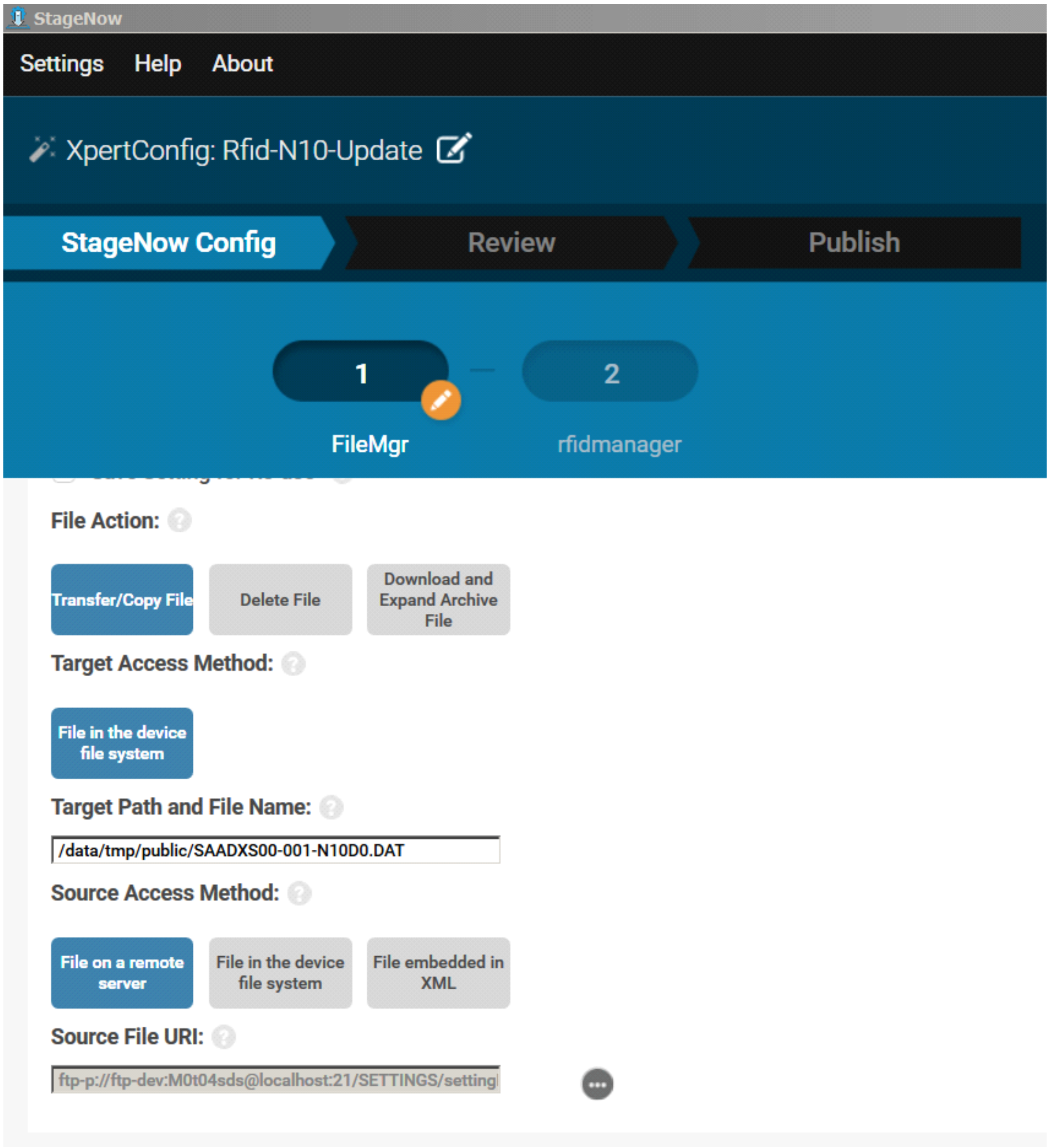
Figure 91 Create Firmware Update-Add Applications


StageNow
Settings
Help
About
Current IP : 10.17.126.35 | Wi-Fi Hotspot
Xpert Mode: TEST
Before you start
Configure any available Settings for a device. Use t
ADD / EDIT
SETTINGS
WIZARD
CONFIG
DEPLOY
1. FileMgr
2. rfidmanager
Cancel
Add

Name	Description	Add
PersonalDictionary	Manage personal dictionary	⊕
PlugInCspSample	RFID Configurations	⊕
PowerKeyMgr	Manage Power Key Configuration	⊕
PowerMgr	Perform power management operations	⊕
RemoteScannerMgr	Remote Scanner Management	⊕
rfidmanager	Rfid configuration	⊕
ScanModeMgr	Set Scan Mode	⊕
SdCardMgr	Manage SdCard Configuration	⊕

6. Enter the **Target Path** (target path in the device) and the **Source file URL** (select file path in the staging server) as shown in Figure 92 and click Continue.

Figure 92 Create Firmware Update-FileMgr Configuration


StageNow
Settings
Help
About
XpertConfig: Rfid-N10-Update
StageNow Config
Review
Publish
1
FileMgr
2
rfidmanager
Delete File
Download and Expand Archive File
File in the device file system
File embedded in XML

File Action: Transfer/Copy File

Target Access Method: File in the device file system

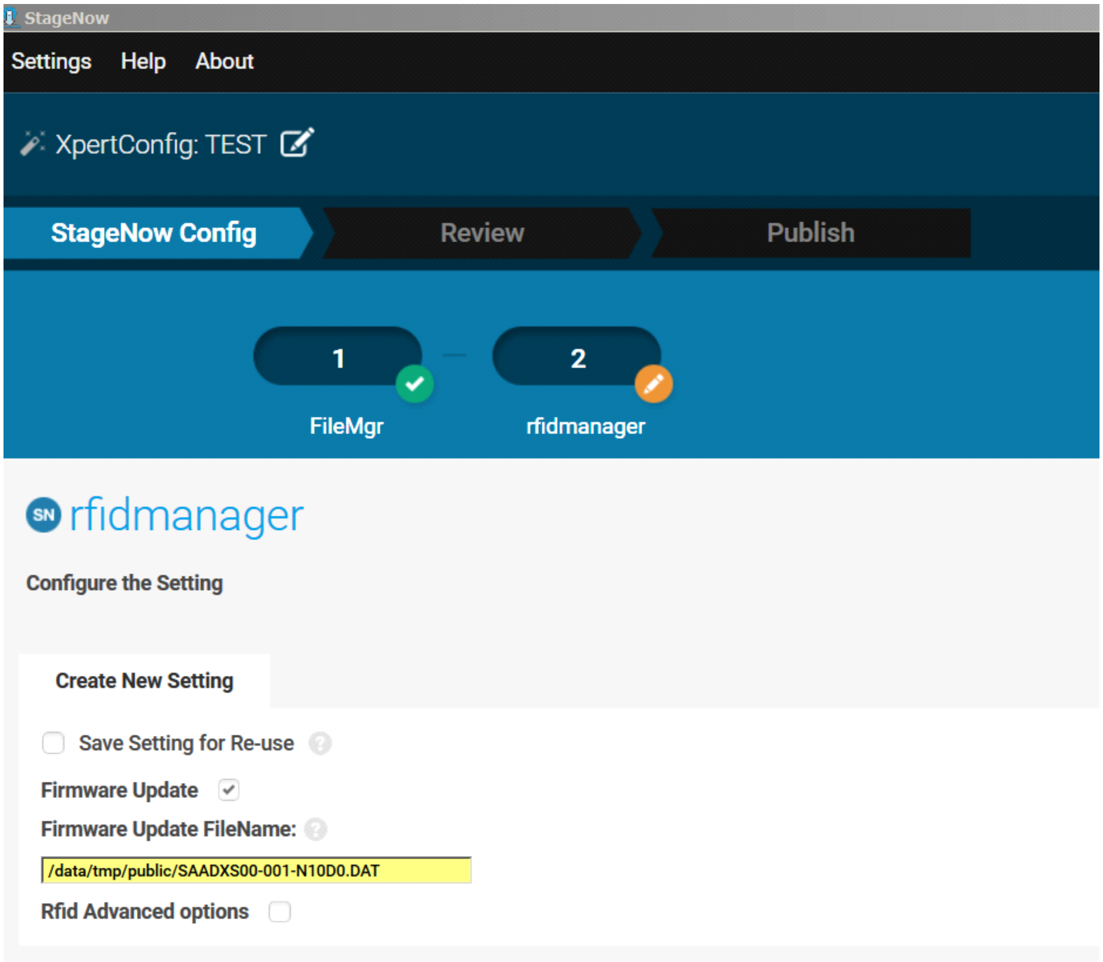
Target Path and File Name: /data/tmp/public/SAADXS00-001-N10D0.DAT

Source Access Method: File on a remote server

Source File URI: ftp-p://ftp-dev:M0t04sds@localhost:21/SETTINGS/setting

7. Select the **Firmware Update** check-box and enter the **Target Path** and **File Name** entered previously (/data/tmp/public/SAADXS00-001-N10D0.DAT) and tap **Continue**.

Figure 93 Create Firmware Update-RfidManager Configuration


StageNow
Settings
Help
About
XpertConfig: TEST
StageNow Config
Review
Publish
1
2
FileMgr
rfidmanager
SN

rfidmanager

Configure the Setting

Create New Setting

☐ Save Setting for Re-use

Firmware Update ☑

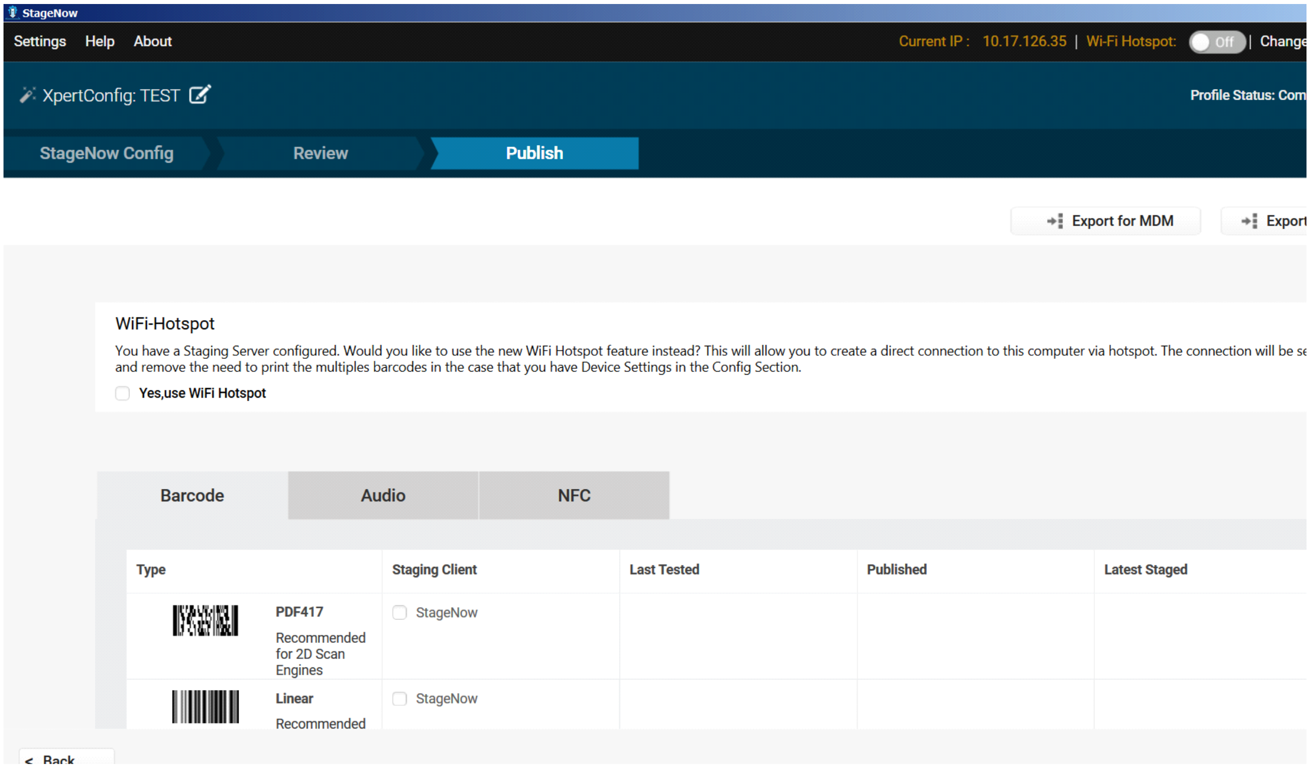
Firmware Update FileName:

/data/tmp/public/SAADXS00-001-N10D0.DAT

Rfid Advanced options ☐

8. Review your input and tap on **Complete** Profile.
9. Select the **Barcode Type** check box required and click on **Test**.

Figure 94 Create Firmware Update-Barcode selection


StageNow
Settings
Help
About
Current IP : 10.17.126.35 | Wi-Fi Hotspot:
Off
| Change
XpertConfig: TEST
Profile Status: Com
StageNow Config
Review
Publish
Export for MDM
Export
Barcode
Audio
NFC
< Back

WiFi-Hotspot

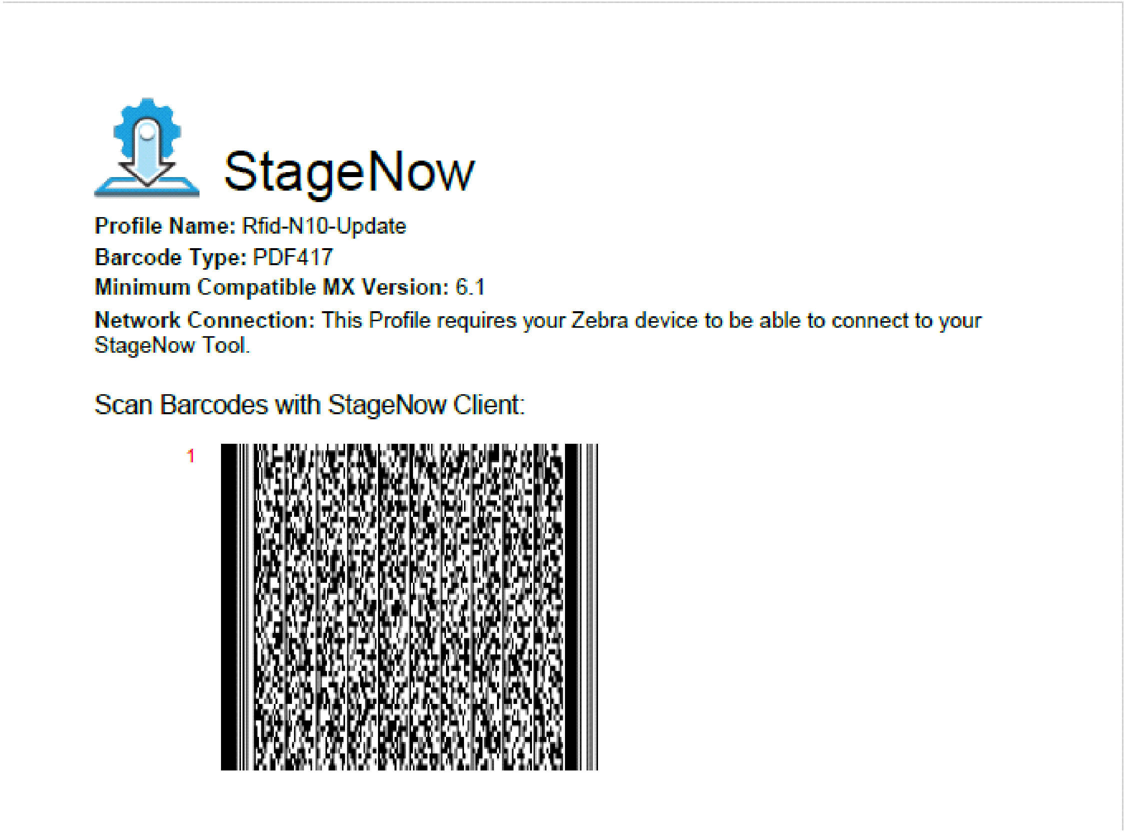
You have a Staging Server configured. Would you like to use the new WiFi Hotspot feature instead? This will allow you to create a direct connection to this computer via hotspot. The connection will be se
and remove the need to print the multiples barcodes in the case that you have Device Settings in the Config Section.

☐ **Yes,use WiFi Hotspot**

Type	Staging Client	Last Tested	Published	Latest Staged
PDF417 Recommended for 2D Scan Engines	☐ StageNow			
Linear Recommended	☐ StageNow			

10. Test generates a barcode which can be scanned using the StageNow client on the device to stage the firmware.

Figure 95 Stage Firmware Barcode



StageNow

Profile Name: Rfid-N10-Update

Barcode Type: PDF417

Minimum Compatible MX Version: 6.1

Network Connection: This Profile requires your Zebra device to be able to connect to your StageNow Tool.

Scan Barcodes with StageNow Client:

Troubleshooting

Introduction

This chapter provides troubleshooting solutions for potential problems. For more detailed device and accessory troubleshooting, refer to the MC33XX Mobile Computer Integrator Guide at: www.zebra.com/support.

Troubleshooting the MC3300R

Table 14 Troubleshooting the MC3300R

Symptom	Possible Cause	Action
RFID Reader does not read tags.	The RF region configuration is not set.	Use the RFID Manager application to set the regulatory region or country operation per the application instructions.
RFID Reader version is not displayed in RFID Manager.	Recovery mode is enabled.	Reboot device.
RFID Reader is responsive but cannot read tags.	Battery is critically low. Reader does not function if battery level is less than or equal to 5%.	Place the RFID reader in the charging cradle until the battery is charged.

Technical Specifications

Introduction

The following sections provide technical specification for the device.

MC3300R Technical Specifications

The following table summarizes the MC3300R’s intended operating environment and technical hardware specifications.

Table 15 MC3300R Technical Specifications

Item	Description
Physical Characteristics	
Dimensions	MC3330R: 6.45 in. L x 2.95 in. W x 8.31 in. D 164 mm L x 75 mm W x 211 mm D MC3390R: 6.45 in. L x 3.78 in. W x 10.67 in. D 164 mm L x 96 mm W x 271 mm D
Weight (with extended battery)	MC3330R with SE4750: 665 g MC3390R with SE4750: 740 g MC3390R with SE4850: 765 g
Display	4.0 inch capacitive; WVGA; color
Imager Window	Corning® Gorilla® Glass
Touch Panel	Corning® Gorilla® Glass touch panel w/air gap
Backlight	LED backlight
Battery	Extended Life: Rechargeable Lithium-Ion 5200 mAh minimum (3.7V)
Expansion Slot	User accessible microSD slot. Supports up to 32 GB microSDHC.

Table 15 MC3300R Technical Specifications (Continued)

Item	Description
Network Connections	USB 2.0 High Speed (host and client), WLAN and Bluetooth
Notification	Side LEDs and audible tone.
Keypad Options	29-key Numeric 38-key Function Numeric (calculator-style integrated numeric keypad) 47-key Alpha-Numeric (calculator-style integrated numeric keypad)
Voice	PTT Voice Support (Internal Speaker)
Audio	Speaker
Performance Characteristics	
CPU	Qualcomm 8056 1.8 GHz hexa-core 64-bit with power optimization
Operating System	Android 8.1 Oreo
Memory	4 GB RAM/32 GB Flash.
Output Power (USB)	USB: 5 VDC @ 500 mA max.
User Environment	
Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F) without battery
Charging Temperature	0°C to 40°C (32°F to 104°F)
Humidity	5% to 95% RH non-condensing
Drop Specification	Multiple 1.5 m (5 ft.) drops to concrete over the entire operating temperature range.
Tumble Specification	1,000 1.6 ft./0.5 m tumbles (hits)
Sealing	IP54
Vibration	5 Hz to 2 KHz
Thermal Shock	-40°C to 70°C (-40°F to 158°F)
Electrostatic Discharge (ESD)	±20 kVdc air discharge, ± 10 kVdc contact discharge
Wireless LAN Data Communications	
Wireless Local Area Network (WLAN) radio	IEEE® 802.11a/b/g/n/ac/d/h/i/k/r/w
Data Rates Supported	2.4 GHz: 144 Mbps 5 GHz: 867 Mbps
Operating Channels	Chan 36 - 165 (5 GHz), Chan 1 - 13 (2.4 GHz); actual operating channels/frequencies depend on regulatory rules and certification agency.

Table 15 MC3300R Technical Specifications (Continued)

Item	Description
Security and Encryption	**Security Modes**: WPA and WPA2 (Personal or Enterprise) **Encryption:** WEP40/WEP104, TKIP and AES **Authentication**: EAP-TLS; EAP-TTLS (MSCHAP, MSCHAPv2, PAP); PEAP (MSCHAPv2, EAP-GTC); LEAP **Other**: Wi-Fi certified, and supports IPv6
Certifications	802.11n/ac, WMM-PS, WMM-AC, PMF, Voice Enterprise, Wi-Fi Direct, WPS
Fast Roam	PMKID/OKC/CCKM/802.11r
Wireless PAN Data	
Bluetooth	V4.1, V2.1 + EDR w/ Bluetooth Low Energy (BLE). Class 2
Data Capture	
Scanning	SE4750-SR 2D, SE4750-MR 2D, SE4850-ER
2D Imager Engine (SE4750) Specifications	
Field of View	Horizontal - 48.0° Vertical - 36.7°
Image Resolution	1280 horizontal X 960 vertical pixels
Roll	360°
Pitch Angle	+/- 60° from normal
Skew Tolerance	+/- 60° from normal
Ambient Light	Sunlight: 10,000 ft. candles (107,639 lux)
Focal Distance	From front of engine: 17.7 cm (7.0 in.)
Laser Aiming Element	Visible Laser Diode (VLD): 655 nm +/- 10 nm Central Dot Optical Power: 0.6 mW (typical) Pattern Angle: 48.0º horizontal, 38.0º vertical
Illumination System	LEDs: Warm white LED Pattern Angle: 80° at 505 intensity
2D Extended Range Imager Engine (SE4850) Specifications	
Field of View	Near camera: Horizontal - 32.0°, Vertical 20° Far camera: Horizontal - 12°, Vertical - 7.6°
Image Resolution	1280 horizontal X 800 vertical pixels
Roll	360°
Pitch Angle	+/- 60° from normal
Skew Tolerance	+/- 60° from normal

Table 15 MC3300R Technical Specifications (Continued)

Item	Description
Ambient Light	Sunlight: 10,000 ft. candles (107,639 lux)
Laser Aiming Element	Laser Wavelength: 655 nm Central Dot Optical Power: 0.6 mW (Class 2 IEC60825:2014)
Illumination System	LEDs: Hyper Red 660nm
Supported Symbologies	
1D	Chinese 2 of 5, Codabar, Code 11, Code 128, Code 39, Code 93, Discrete 2 of 5, EAN-8, EAN-13, GS1 DataBar, GS1 DataBar Expanded, GS1 DataBar Limited, Interleaved 2 of 5, Korean 2 of 5, MSI, TLC 39, Matrix 2 of 5, Trioptic, UPCA, UPCE, UPCE1, Web Code.
2D	Australian Postal, Aztec, Canadian Postal, Composite AB, Composite C, Data Matrix, Dutch Postal, Japan Postal, Maxicode, Micro PDF, Micro QR, PDF, QR Code, UK Postal, US Planet, US Postnet, US4State, US4State FICS.

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