

### **USER MANUAL**

# Linea® Pro 7i

For iPhone® 6s/7/8





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## **Legal Notice**

"Made for iPhone" means that an electronic accessory has been designed to connect specifically to the iPhone and has been certified by the developer to meet Apple performance standards. Apple is not responsible for the operation of this device or its compliance with safety and regulatory standards. Please note that the use of this accessory with an iPhone may affect wireless performance.

### **Compatible Devices**

### iOS Compatibility

iPhone 6s

iPhone 7

iPhone 8

### **Trademarks**

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## **Table of Contents**

Overview	4	Turn on the Linea Pro 7i	11
Technical Data	4-5	Scan Barcodes	11
Box Contents	6	Using the RFID Reader	12
Getting Started	6	Servicing the Linea Pro 7i	12
Product Description	7	Troubleshooting	13
Assembling Your Linea Pro 7i	8	Warranty	14
Battery Charging	9	Disclaimer	14
Battery Status	9	Product Returns and Servicing	14
Developing Linea Pro 7i Apps	9	Symbols	14
Programmable Options	10	Federal Communications Commissions	15



### **Overview**

The Linea Pro 7i allows mobile employees to convert their iPhones into a powerful solution for the retail, warehousing, supply chain, ticketing and hospitality industries. The Linea Pro 7i includes an 1D/2D barcode scanner, Bluetooth®, and optional RFID.

### **Features**

### 1D/2D Barcode Scanner

Supports one-dimensional (1D) and two-dimensional (2D) barcode symbols, which can be read in any direction (omni-directional). The effective reading distance of the barcode reader varies depending on the barcode size. The barcode scanner is also capable of reading barcodes on a LCD screen.

### **RFID**

Built-in RFID tag/card reader with read/write capability at 13.56 MHz. The RFID reader incorporates several RFID formats, depending on the model of your Linea Pro 7i.

### **Bluetooth**

Available Bluetooth 2.0 SPP compatibility, which allows connection to a Bluetooth peripheral, such as a printer.

### **Battery Status**

Battery status can be viewed in the mobile application.

### **Accessories**

Visit our website at https://ipcmobile.com or contact your Infinite Peripherals account representative for additional information about our current and future product accessories.

### **Technical Data**

### **Physical Dimensions**

### **Processor**

32-bit ARM™ Cortex™ - M3 MCU

### Compatibility

iPhone 6s

iPhone 7

iPhone 8

### Dimensions (L x W x H)

76mm x 25mm x 157mm (3.00" x 10.8" x 6.19")

### Weight

160g (5.60 oz.) without iOS device



### **Connectivity**

### Connectivity

Lightning™ Connector

Pass-through sync via USB Type-C charge/sync cable
(Optional) Bluetooth 2.0 Class 2

-SPP Serial Port Profile

#### Note:

Use only original USB-A to USB-C cable for charging iPhone. Use only UL approved USB adapters. The minimum requirements of USB adapters  $5V\ 2.1A$ 

### (Optional) RFID Reader

ISO/IEC 14443 Type-A/MIFARE: MIFARE MINI MIFARE CLASSIC-1K, MIFARE CLASSIC-4K MIFARE ULTRALIGHT, ULTRALIGHT-C

MIFARE PLUS 2K/4K

MIFARE DESFire card

ISO/IEC 14443 Type - B:

- Supports most cards

ISO 15693:

- Supports most cards

JIS X 6319-4:

- Compatible with FeliCa

ISO/IEC 18000-3 mode 3:

- NFC

### **Barcode Types Supported**

1D/2D high-speed imagers

### **Battery**

Rechargeable Lithium-Polymer battery 3.7V/2400 mAH Precise battery management by Fuel Gauge Micro-controller for remaining battery capacity

### **Power Supply**

DC 5V through USB Type-C
DC 5V through charging station
DC 5V through dual charging stationty

#### **Buttons**

On/Off and two keys for barcode scanner

### **Indicators**

Electromagnetic buzzer

### **Certifications**

CE

### **Environment**

### **Temperature**

Operation:  $-10^{\circ}$ C to  $+40^{\circ}$ C (14°F to  $+104^{\circ}$ F) Storage:  $-20^{\circ}$ C to  $+50^{\circ}$ C ( $-4^{\circ}$ F to  $+122^{\circ}$ F)

### **Relative Humidity**

Operation and Storage: 5%-90%



### **Box Contents**

- Before using your Linea Pro 7i, remove the unit and any included accessories from the shipping cartoon and verify the contents against the packing list.
- Retain all packing materials, invoice, and bill of lading. These may be required to return the device for servicing later, or to process a claim with the shipping carrier.
- Carefully inspect the contents inside of the packaging for any signs of damage. If there are signs of damage, do not attempt to use the unit. Notify your
  account executive or contact technical support at https://ipcmobile.com/devices.
- Ensure the battery is fully charged prior to initial use.

These items are included with your unit:

### Linea Pro 7i (1)



### Standard Battery (1)



### USB Type-C™ charge/sync cable (1)



### **Security Torx Screw (1)**



#### Note:

Box contents and part numbers vary based on your order configuration.

## **Getting Started**

The Linea Pro 7i allows you to scan barcodes and pass that data into compatible iOS applications. In addition, this form-fitted solution offers the IP66 rating for protection against dust and moisture.

The following helps you get the Linea Pro 7i ready for use:

What to do	Section
Assemble the Linea Pro 7i with your iOS device	Assembling Your Linea Pro 7i
Fully charge battery before first use	Charging Your Linea Pro 7i
Software required to operate the unit with you iOS device	Developing Applications for Your Linea Pro 71
Initialize barcode scanner and/or RFID functionality	Turn on Your Linea Pro 7i

#### Note:

Use of the barcode scanning and RFID reader features requires the installation of software. Contact your Infinite Peripherals account representative for available software.



## **Product Description**

- 1. Scan engine
- 2. Back cover
- 3. On/Off button for iOS device
- 4. Left/right Scan button
- 5. USB Type-C connection

- 6. Volume control buttons for iOS device
- 7. iOS device ring/silent switch
- 8. Battery cover latch
- 9. Battery cover
- 10. External features connection





## Assembling Your Linea Pro 7i

Remove the top cover by loosening the screw, and then slide the



- unit forward and lift it up.
- Align the top cover with the two hooks, and then slide it down until it clicks into place.
- Tighten the security screw onto the back cover.



Attach your iOS device to the Lightning<sup>™</sup> connector by firmly sliding it into place.





## **Battery Charging**

The Linea Pro 7i uses a Lithium-ion rechargeable battery and can be charged thought the USB port. The charging time is approximately 3 hours and 30 minutes, if fully discharged.

In addition, the Linea Pro 7i supports pass-through charging to the iOS device. Both your iOS device and Linea Pro 7i may be charged together using the USB Type-C port or by placing it in a Linea Pro 7i charging dock.

#### Note:

To prevent electrical damage to the unit or battery, ensure the charging cables are the approved USB Type-C.

### How to Charge Your Linea Pro 7i

1. Connect the USB Type-C charging cable to the USB port.



## **Battery Status**

To check the battery status, open the application on your iOS device and view the device data. Your iOS device must be connected to the Linea Pro 7i before you can check the battery status.

### Note:

When the status is above 20%, set the automated charge functionality to automatically charge the iOS battery.

## Developing Linea Pro 7i Apps

Software is not provided with your Linea Pro 7i. Please contact your reseller or Infinite Peripherals for Third Party software solutions. Integrating the Linea Pro 7i into your iOS application requires the use of the Infinite Peripherals Universal Software Developers Kit (SDK).

The SDK incorporates an API specifically for developing applications to use Linea Pro 7i functionality. For additional details on using the Infinite Peripheral Universal SDK, please refer to the appropriate SDK documentation.

For the latest Infinite Peripheral Universal SDK, please visit our developer portal at:

https://developer.ipcmobile.com



## **Programmable Options**

Configure these optional settings via the SDK.

### **Charging Current**

Charging current may be set to 500mA (default) or 1000mA.

### **Set Charging**

The Linea Pro 7i can charge the iPhone using its internal battery by enabling the "setCharging" setting. When the Linea Pro 7i battery is above 20%, it will then start to charge the iOS device battery.

### **Enable Scan Button**

Select the Enable Scan button in the SDK.

### Scan Mode

Linea Pro 7i supports the following scan modes:

#### Single Scan

Scanning a single barcode by pressing and releasing either Scan button.

#### Multi Scar

Scanning multiple barcodes by pressing and holding either Scan button.

### Motion-Detect

Scanner is activated automatically when barcode is placed near the barcode engine.

### **Multi-Scan without Duplicates**

Scanning multiple barcodes without duplicates.

### **Pass-Through Sync**

When enabled and the USB Type-C cable is plugged in, the iOS device is synced with a Windows computer or an Apple MacOS.

When syncing is required, enable the Pass-Through Sync setting in the SDK. When this setting is disabled and the USB cable is plugged in, the Linea Pro 7i only charges, but does not scan.

To use the scanner again, the USB Type-C cable must be removed.

### **Idle Time**

Default setting: 5400 seconds (90 minutes).



## Turn on the Linea Pro 7i Using Dual Scan Buttons

Two scan buttons located on each side of the unit are dual purpose, that means either button can turn on the unit or scan barcodes.

- With the unit turned off, press one of the scan buttons on either side.
- Press a scan button a second time to activate the scanner for normal barcode scanner.

#### Note:

If the Linea Pro 7i is idling for an extended period of time, the power turns off automatically to preserve the charge on the internal battery pack. When turned off, the unit is in sleep mode immediately.



## **Scan Barcodes**

The scan engine in the Linea Pro 7i supports one-dimensional (1D) and two-dimensional (2D) barcode symbols. The effective reading distance of the barcode reader varies based on the barcode size. For example, 15-20 cm (5.9-7.9 inches).

These types of scanning modes are supported:

- Single scan
- Multi-scan
- Press and hold the Scan button on either side of the unit to activate the Linea Pro 7i.
- Position the scan head as close to the barcode label as possible so the scan line crosses both ends of the barcode.
- Slowly pull the unit back, increasing the distance between the barcode and scan head, until the barcode is read by the scanner.
   Data is displayed on the iOS device.

- Motion detect
- Multi-scan without duplicates





## Using the RFID Reader

The optional RFID tag/card reader incorporates several RFID formats depending on the model of your Linea Pro 7i.

- 1. To activate the unit, press the Scan button.
- Place the RFID tag/card over the receiver/transmitter as indicated by the RFID label.

#### Note:

Data is sent from the Linea Pro 7i RFID reader to the iOS device.



## Servicing the Linea Pro 7i

The Linea Pro 7i is designed with a 2400Ah battery, which can be replaced. Ensure you use only a new battery with part number PL-15-110.

### How to Replace the Battery

- 1. Slide the battery latch, and then pull the battery cover up.
- 2. Remove the old battery by pulling it up.

- 3. Insert the side of the new battery with the contacting pads, and then press it down.
- 4. Before closing the battery cover, press the battery latch down and then press the battery cover in place. Slide the lever to the lock position.









## **Troubleshooting**

### **Barcode Scanner**

Issue	Possible Cause
Scanner does not turn on	<ul> <li>Battery is too low.</li> <li>Software is not powering on the unit.</li> <li>Faulty scan engine.</li> </ul>
Data/partial data not returned during scanning	<ul> <li>Unreadable barcode.</li> <li>Battery is too low.</li> <li>Faulty scan engine.</li> <li>Software decoding incorrectly.</li> </ul>
Unable to perform mulitscanning	<ul><li>Multiscan not enabled.</li><li>Multiscan not supported by software.</li></ul>
Unable to scan specific barcodes	<ul> <li>Barcode type not enabled.</li> <li>Barcode type not supported.</li> <li>Refer to Technical Specifications for additional information.</li> </ul>

### **RFID Reader**

Issue	Possible Cause	
RFID reader does not turn on	Battery is too low.	
	Software is not powering on the unit.	
	Faulty reader.	
Data/partial data not returned during reading	Unreadable RFID tags/cards.	
	Battery is too low.	
	Faulty RFID reader.	
	Software decoding incorrectly.	
Unable to scan specific tags or cards	RFID type not enabled.	
	RFID type not supported.	
	Refer to Technical Specifications for additional information.	

#### Note:

If problems persist with your Linea Pro 7i, contact a Mobility Expert at https://ipcmobile.com/devices/linea-pro-7i.



## **Warranty**

Infinite Peripherals does not warrant, and is not responsible for, any damage to the Linea Pro 7i ("Product") or the assembled iOS device as a result of liquid or solid particle intrusion into the Product, or damaged caused by dropping the Product with the assembled iOS device. If a material or workmanship defect arises with regard to any Infinite Peripherals product, and a valid claim is received within the Warranty Period, Infinite Peripherals (at our sole discretion) will repair the Product using new or refurbished parts, or replace the Product with a new or refurbished Product.

For purposes of this limited warranty, "refurbished" means a product or part that has been substantially returned to its original specifications. In the event of a defect, these are your exclusive remedies.

### Disclaimer

NO WARRANTY. This technical documentation is provided AS-IS. Further, the documentation does not represent a commitment on the part of. Infinite Peripherals, Inc does not warrant that it is accurate, complete or error free. Any use of the technical documentation is at the risk of the user. Infinite Peripherals, Inc reserves the right to make changes in specifications and other information contained in this document without prior notice, and the reader should in all cases consult Infinite Peripherals, Inc to determine whether any such changes have been made. Infinite Peripherals, Inc shall not be liable for technical or editorial errors or omissions contained herein; nor for incidental or consequential damages resulting from the furnishing, performance, or use of this material. Infinite Peripherals, Inc does not assume any product liability arising out of or in connection with the application or use of any product or application described herein.

## **Product Returns and Servicing**

Use the link in step 1 to create an account and gain access to our Knowledge Base and online support services. Through our online support center, you'll be able to download files, open a Support Ticket, manage your RMAs, view your account Profile and subscribe to Alerts.

#### To request a RMA

- 1. Create a user account in the RMA Support Portal at http://ipcmobile.com/support/rma/
- 2. Login to your user account, and then click Create RMA Request.
- 3. Read the instructions provided and complete the online request form.

## **Symbols**

Symbol	Description
<u>i</u>	Refer to the instructions before using this product
<b></b>	Manufacturer
$\sim$	Manufacture Date
<u> </u>	Caution
SN	Serial Number
P/N	Part Number
<u>A</u>	Waste Electrical and Electric Equipment
FC .	Complies with part 15 of the FCC rules

14



### **Federal Communications Commissions**

Federal Communications Commission (FCC) Statement

#### 15.21

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

#### 15.105(b)

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Operation is subject to the following two conditions:

- 1. This device may not cause interference and
- 2. This device must accept any interference, including interference that may cause undesired operation of the device.

FCC RF Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.