



User Manual

Linea Pro 5



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Legal Notice

“Made for iPod” “Made for iPhone” and “Made for iPad” mean that an electronic accessory has been designed to connect specifically to iPod, iPhone, or iPad, respectively, 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 iPod, iPhone or iPad may affect wireless performance.

Compatibility

Made for

iPod touch (5th generation)

iPad, iPhone, iPod touch are trademarks of Apple Inc., registered in the U.S. and other countries. Lightning is a trademark of Apple Inc.

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.

CAUTION: Use shielded cables to connect this device to computers.

Any changes or modifications not expressly approved by the grantee of this device could void the user's authority to operate the equipment.

Linea Pro 5 Models

Model	Description
<i>Linea Pro 5 MSR</i>	<i>Linea Pro 5 with 3-Track mag-stripe reader</i>
<i>Linea Pro 5 EMSR</i>	<i>Linea Pro 5 with Secure Encrypting MSR Module</i>
<i>Linea Pro 5 MSR 1D/2D</i>	<i>Linea Pro 5 with 3-Track mag-stripe reader and 1D/2D barcode scanner</i>
<i>Linea Pro 5 EMSR 1D/2D</i>	<i>Linea Pro 5 with with Secure Encrypting MSR Module and 2D barcode reader</i>
<i>Linea Pro 5 MSR 1D/2D/BT</i>	<i>Linea Pro 5 with 3-Track mag-stripe reader, 1D/2D and Bluetooth®</i>
<i>Linea Pro 5 EMSR 1D/2D/BT</i>	<i>Linea Pro 5 with Secure Encrypting MSR Module, 1D/2D and Bluetooth®</i>
<i>Linea Pro 5 MSR 1D/2D/ BT/RFID</i>	<i>Linea Pro 5 with 3-Track mag-stripe reader, 1D/2D/Bluetooth® and RFID reader</i>
<i>Linea Pro 5 EMSR 1D/2D/ BT/RFID</i>	<i>Linea Pro 5 with Secure Encrypting MSR Module, 1D/2D/Bluetooth® and RFID reader</i>

Table 1

Overview

Linea Pro 5 allows mobile workers to convert their iPod 5 handset into a powerful point-of-sale solution. The Linea Pro 5 includes optional 1D or 2D barcode scanner, 3-tracks magnetic stripe reader, RFID reader and a rechargeable battery extender in a very compact and durable protective case.

Features:

Battery: Rechargeable Li-ion Battery - 1300 mAh, charging via USB or DATECS Power Station.

Magnetic Card Reader – 3-Track Head:

- Swipe Speed: Minimum of 1.97 in/sec
- MTBF: 1 million swipes
- Bidirectional reading capabilities

Barcode Scanner: Single / Multi-scan mode

- 1D - MTBF: 30K hours (Laser Diode & Mirror Unit 10K hours)
- 2D – EM3070 Image sensor 752x480 CMOS
- 2D – MDI-3100 Image sensor 752x480, Scan rate: Up to 60fps
- 2D – EA-30 Image sensor 752x480, Scan Rate: up to 60fps/120fps in 1D mode (Aimer: 650nm laser, Class 2)

Indicators:

- Visual: 4 LEDs for device battery status
- Audio: Electromagnetic Buzzer

I/O Connectors:

- 9-pin lightning connector
- 10-pin female Mini-B USB connector for charging and synchronization

Technical Data




Power supply	<i>Internal voltage 3.3V & 5V</i>
Compatibility	<i>iPod5</i>
MCU	<i>32-bit ARM™ Cortex™ - M3 based Microcontroller</i>
Communication Interface	<i>USB Interface – between Linea Pro 5 and iPod5 USB Synchronization between Apple iPod5 ® & PC</i>
Power Consumption	<i>Deep sleep ~20uA</i>
Bluetooth	<i>Bluetooth 2.0 Class 2 distance - Up to 10m Serial port profile</i>
BAR code	<i>MDL - 1000 - Laser Scan Engine 1D Barcode MDI - 3100 - High Speed 2D CMOS Imager EM3070 – High Performance 2D Imager scanner EA-30 - High Performance 2D Imager scanner</i>
Supported Barcode Type	<i>UCC/EAN 128, EAN 13, EAN 8, UPC A, UPC E, UPC E1, Code 11, Code 39, Code 93, Code 128, GS1, Matrix 2 to 5, Code 11,2 of 5 industrial, 2 of 5 interleaved, Codebar, MSI/Plessey, UK/Plessey, IATA,ISBN, ISMN, ISSN, S-code, Telepen, RSS 14, RSS Limited, RSS- Expanded, PDF417, microPDF417, Data Matrix, QR code, Aztec code, Maxi code, Micro QR code</i>
RFID	<i>MIFARE MINI MIFARE CLASSIC-1K, MIFARE CLASSIC-4K MIFARE ULTRALIGHT, ULTRALIGHT-C ISO 14443, ISO 15693 MIFARE PLUS 2K/4K DESFire card, FeLiCa</i>
MSR	<i>3-track bidirectional reading capabilities Type: ISO 7816-1/2/3 compatible & RAW mode</i>
Secure Encrypting MSR Module	<i>PCI PTS 3.x SRED compliant DUKPT and Fixed Key Management 3DES-112, AES-128, AES-256 encryption algorithms</i>
LEDs	<i>Four LEDs for battery status</i>
Buttons	<i>Scan and Status Buttons</i>
Audio	<i>Electromagnetic Buzzer</i>
Battery	<i>Rechargeable Li-ion Battery 3,7V 1300mAh, charging from USB port or DATECS Power station</i>
Weight, g	<i>120 / with EA-30/</i>
Dimensions, mm (L x W x H)	<i>iPod5 with 1D scanner 142 x 69 x 22 iPod5 with 2D scanner 142 x 69 x 27</i>
Environment	<i>- Operating temperature 0°C to +40°C - Operating humidity 35 to 85% RH - Storage temperature -5°C to +40°C - Storage humidity 10 to 90% RH</i>
Cables	<i>Standard USB A to mini B CABLE(0.9m) USB DOWNLOAD CABLE (option)</i>

** Specifications subject to change without notice.*

Table 2

Box Contents

Your Linea Pro 5 comes with the following items listed below:

Item	Part Number	Descriptions	Image
1	Linea Pro 5	Linea Pro 5 / Scanner	
2	USB A to mini USB B	USB Sync cable	
3	Linea Pro 5 User Manual	User's manual	

**Bulk Shipments may ship without cables and manuals in each box.*

Table 3

Getting Started

The Linea Pro 5 allows you to scan barcode and capture Magnetic Strip information onto your iPod 5. Before using your Linea Pro 5 the battery should be properly charged. The following Quick Start guide will help to get your Linea Pro 5 ready for use.

Quick Start:

Step	What to do	Purpose	Where to find more information
1	Fully charge your Linea Pro 5 as recommended.	The battery pack should be fully charged before use to ensure long battery life.	Charging Battery, Page 13.
2	Install Software.	Barcode Scanning & Card Reading requires software to be installed onto your iPod 5	Please contact your distributor
3	Attach device to Linea Pro 5	Connecting your Linea Pro 5 and iPod 5	Attaching device, Page 11.

Table 4

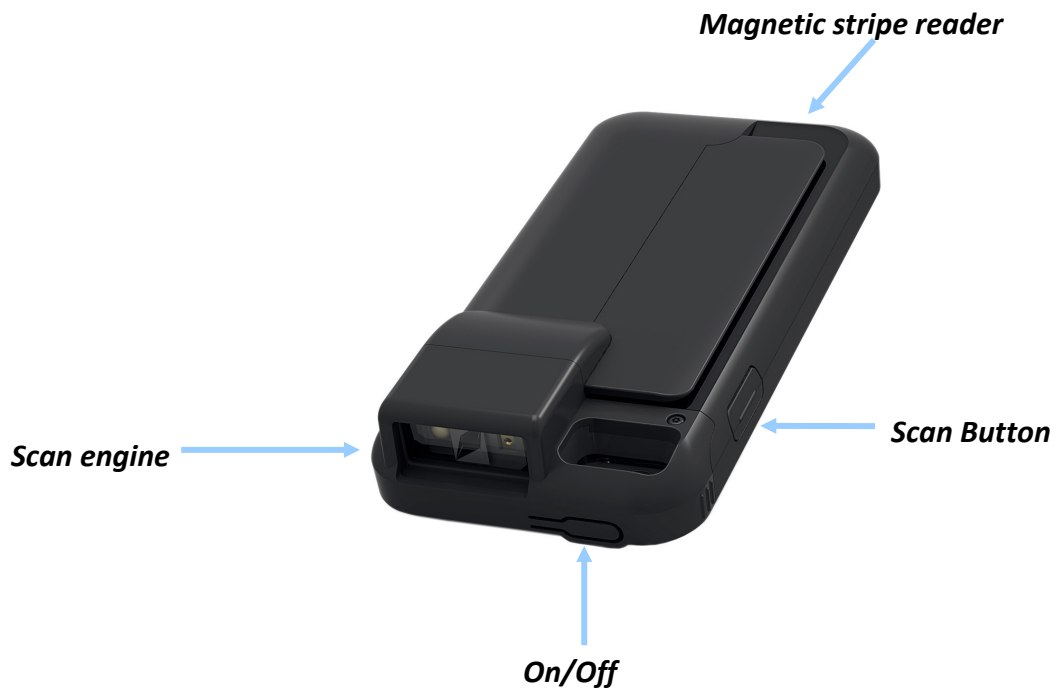
Buttons overview

Front side view





Back side view



Linea Pro 5 versions for iPod5



Attaching device

Step 1 – Remove the “back cover”



Step 2 – Slide the iPod 5 or into Linea Pro 5. (Please, before attaching the device, check the compatibility version of the Linea Pro 5 - for iPod 5 (page 10), and then connect it with the correct Linea Pro 5).



Slide in until iPod 5 is connected to the lightning 9-pin connector.

Step 3 – Return the “back cover”



Operation modes

- Active mode - While iPod 5 is inserted.
 While the Linea Pro 5 application is active.
- Sleep mode - While iPod 5 is removed (after ~10sec).
 When iPod 5 On/Off button is pressed (after ~10sec).
 When iPod 5 "Auto-Lock" function is activated (after ~10sec).

Charging Battery

The Linea Pro 5 uses a 1300mAh Lithium-Ion rechargeable battery pack. Before first use, the battery pack should be charged for at least (4) hours. Linea Pro 5 can be charged via USB port or DATECS Power Station. When the Linea Pro 5 charging is started, automatically starts the charging of the inserted inside the cradle iPod 5.

WARNING: To prevent electrical damage to the Linea Pro 5 and/or battery pack, please use approved USB to Mini USB cables only!

Linea Pro 5 has 4 battery status LEDs. The battery level status can be checked by pressing the status button or can be viewed from the application.



Battery status level of the Linea Pro 5



LED1 is lighting – battery level is under or equal to 3,6V.



LED1 and LED2 are lighting – battery level is between 3,6V and 3,7V.



LED1, LED2 and LED3 are lighting – battery level is between 3,7V and 3,9V.



LED1, LED2, LED3 and LED4 are lighting – battery level is between 3,9V and 4,2V.

While the device is charged, depending on the battery level, one of the LEDs is blinking.

When the device is fully charged all 4 LEDs are continuously lighting.

Charging Modes

- Enable pass-through sync (enable sync between iPod 5 and PC with charge)

Barcode Scanning

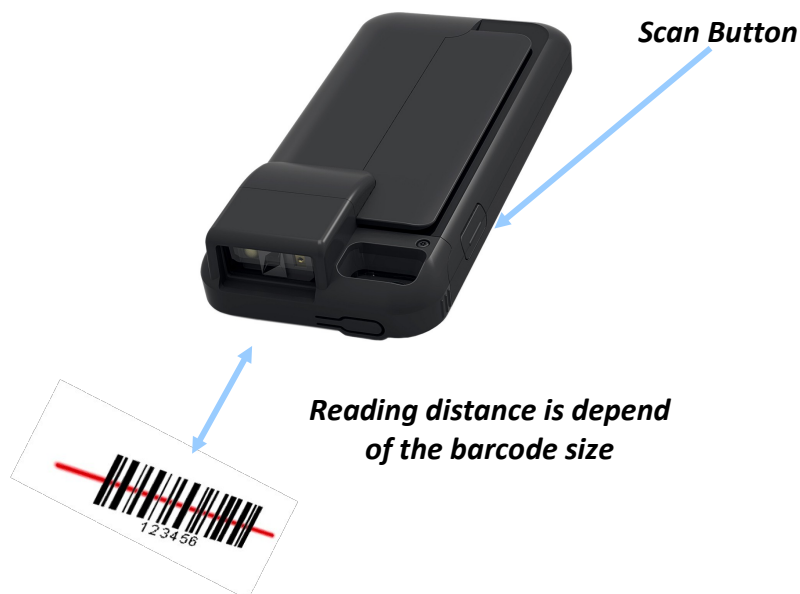
Using the 1D barcode scanner:

The Linea Pro 5 1D uses a scan engine that supports one-dimensional (1D) barcode symbols. The effective reading distance of the barcode reader varies depending on the barcode size.

Scanning 1D Barcodes:

To scan a 1D barcode, first activate the scanner. Then position the scanning head as close as possible to the barcode label so that the scan line crosses both ends of the barcode as shown on the figure below.

Slowly pull back the unit, while increasing the distance between the barcode and scanning head, until the barcode has been read by the scanner.



Linea Pro 5 supports different types of scan:

- Single Scan
- Multi Scan

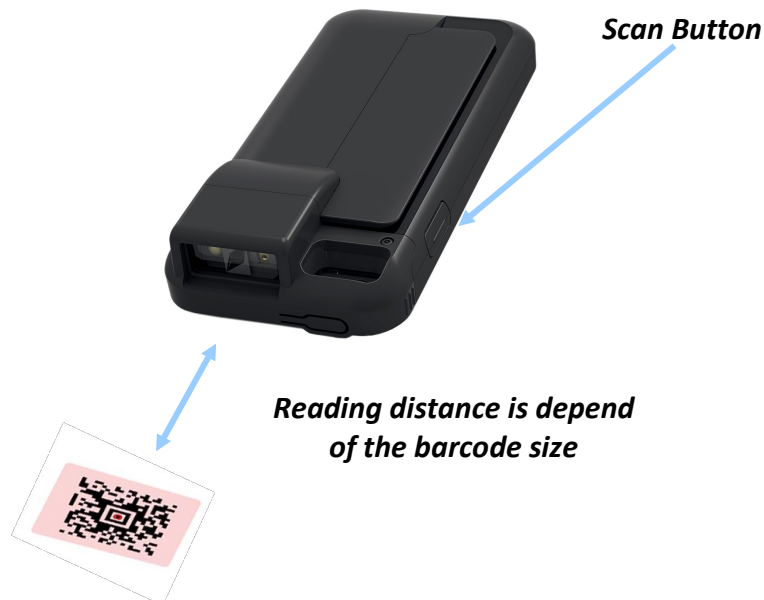
Using the 2D barcode scanner:

The Linea Pro 5 2D uses a scan engines that supports one-dimensional (1D) and two-dimensional (2D) barcode symbols. The effective reading distance of the barcode reader varies depending on the barcode size.

Scanning 2D Barcodes:

To scan a 2D barcode fist activate the scanner. Then position the scanning head to the center of the barcode by aiming with the red laser beam and the illumination box is over the outer edges of the barcode, as shown in the figure below.

Slowly pull back the unit, while increasing the distance between the barcode and the scanning head, until the barcode has been read by the scanner.



Linea Pro 5 supports different types of scan:

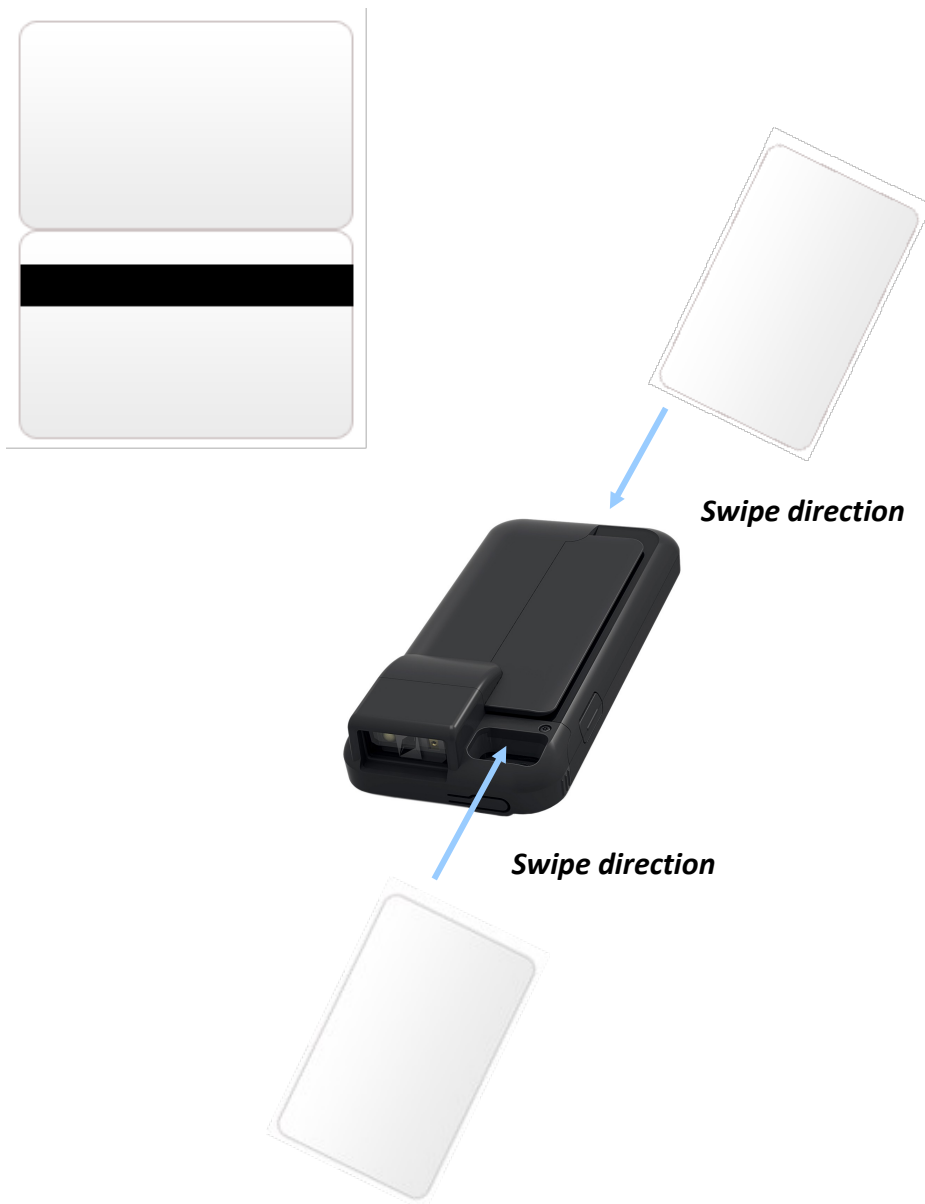
- Single Scan
- Multi Scan

Card Reading

Reading Magnetic Stripes:

The Linea Pro 5 has a built-in magnetic card reader. The card reader incorporates a (3) track magnetic read head, requiring a single swipe to read field data from all three tracks.

The magnetic reading head faces up, towards the top of the bottom cover of the cradle. When swiping the card into the reader, the magnetic stripe must be facing down, as shown in the figure below. Keep the edge of the card flat on the inner base of the reader to ensure that the magnetic stripe passes over the reading head evenly



Contactless Card Reading

In order to use the RFID card reading function, special software must be used. Please contact your distributor in order to get the latest demo application and SDK.

Place the card on the shown spot and press the reading RFID card button on the application. The data will be sent from the Linea Tab RFID reader to the Apple Device.

