



User Manual

Linea® Pro G

Google Pixel 8A



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Regulatory Information

USA FCC ID: 2BH40LPG

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: Any changes or modifications to this device not explicitly approved by manufacturer could void your authority to operate this equipment. This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

RF Exposure Information and Statement

This transmitter must not be in co-location or operating in conjunction with any other antenna or transmitter. This device complies with FCC RF radiation exposure limits set forth for an uncontrolled environment.

EU statement

Declaration of conformity

Herby, IPC Mobile Ltd. declares that this Linea Pro G is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. In accordance with Article 10(2) and Article 10(10), this product allowed to be used in all EU member states. The device complies with RF specifications when the device used at 5mm from your body.

UK statement

Declaration of conformity

Herby, IPC Mobile Ltd. declares that this Linea Pro G is in compliance with the essential requirements and other relevant provisions of Directive S.I. 2017 No 1206. In accordance with Section 6(1)(a), 6(1)(b) and Section 6(2), this product allowed to be used in UK. The device complies with RF specifications when the device used at 5mm from your body.

Specifications

Hardware Version: C0488xx

Software Version: 01.05.xx.xx

NFC: 13.56MHz (Below 42dBuA/m@10m)

Manufacturer: IPC Mobile

Address: 17681 Mitchell N, Irvine, CA 92614

CANADA ISSED Statement

IC: 32870-LPG

English: This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

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

The digital apparatus complies with Canadian CAN ICES-3 (B)/NMB-3(B).

French: Cet appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux RSS exemptés de licence d'Innovation, Sciences et Développement économique Canada.

L'exploitation est soumise aux deux conditions suivantes :

- (1) Cet appareil ne doit pas provoquer d'interférences.
- (2) Cet appareil doit accepter toute interférence, y compris les interférences susceptibles de provoquer un fonctionnement indésirable de l'appareil.

l'appareil numérique du ciem conforme canadien peut - 3 (b) / nmb - 3 (b).

This device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RF exposure, users can obtain Canadian information on RF exposure and compliance.

cet appareil est conforme à l'exemption des limites d'évaluation courante dans la section 2.5 du cnr - 102 et conformité avec rss 102 de l'exposition aux rf, les utilisateurs peuvent obtenir des données canadiennes sur l'exposition aux champs rf et la conformité.

This equipment complies with Canada radiation exposure limits set forth for an uncontrolled environment.

Cet équipement est conforme aux limites d'exposition aux rayonnements du Canada établies pour un environnement non contrôlé.

The device has been evaluated to meet general RF exposure requirement. This equipment should be installed and operated with minimum distance 0mm between the radiator & your body.

L'appareil a été évalué pour répondre aux exigences générales d'exposition aux RF.

Cet équipement doit être installé et utilisé avec une distance minimale de 0 mm entre le radiateur et votre corps.



Waste Electrical & Electronic Equipment



The symbol means that according to local laws and regulations your product shall be disposed of separately from household waste at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Trademarks

Specifications subject to change without notice. IPCMobile, Linea Pro, Infinia Pro are trademarks of IPCMobile, Inc. All other trademarks are property of their respective owners. Refer to page 7 for Technical Specifications.

Disclaimer

NO WARRANTY. This technical documentation is provided AS-IS. Further, the documentation does not represent a commitment on the part of. IPCMobile, 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. IPCMobile, Inc reserves the right to make changes in specifications and other information contained in this document without prior notice, and the Connected should in all cases consult IPCMobile, Inc to determine whether any such changes have been made. IPCMobile, 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. IPCMobile, 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.



Overview

The Linea Pro G (LPG) for Google Pixel 8A is a form-fitted high-performance barcode scanner. This enterprise-grade mobile device delivers quick, reliable scans using a hot-swappable battery for mobility. With the optional RFID enabled, the LPG supports optional HF RFID, or mid-range Electronic Product Code (EPC) Class 1 Gen 2 UHF RFID. The LPG scans barcodes and passes that data into compatible Google Pixel 8A applications. The form-fitted solution offers the IP67 rating for protection against dust and moisture.

Features

High Performance 1D/2D Barcode Scanner

Dual scan buttons support 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 and scan engine.

(Optional) Push To Talk (PTT)

Dual push to talk buttons provide flexibility on switching between voice transmit to voice receive mode, when the AI Wedge or designated mobile application is engaged.

(Optional) Programmable Buttons

Dual scan and dual PTT buttons are pre-programmed buttons. Buttons can be re-assigned as necessary for customer needs for other functions within AI Wedge or designated mobile application.

(Optional) RFID | Contactless Card Reader

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 G.

Battery

Available are two (2) capacities of battery. Standard capacity is 2500mAh and extended capacity is 5000mAh. Batteries can be replaced without tools. Battery status within the mobile application will provide battery health. Battery health may include but not limited to battery pack voltage, serial number, and remaining capacity.

Box Contents



USB Type-C™ 2.0 Male/Male Charging | Syncing cable (1)



PSL-T616-90 (2)

*T6 Driver not provide

** Use of wrong driver will damage the security screw

**SKUs based on your order configuration:**

Part Number	Description
LPGAI-H5MPHF-PX8A	Linea Pro G AI with Honeywell 5MP, HF RFID, NFC, for Google Pixel 8a, 00RHF
LPGAI-ZA2DHF-PX8A	Linea Pro G AI Enterprise with Zebra Advanced Range 2D SE, HF RFID, NFC, for Google Pixel 8a, 00RZF
LPGAI-ZS2DHF-PX8A	Linea Pro G AI Enterprise with Zebra Standard Range 2D SE, HF RFID, NFC, for Google Pixel 8a, 00RZF
LPGAI-H5MPHF-E-PX8A	Linea Pro G AI with Honeywell 5MP, HF RFID, NFC, Extended Battery, for Google Pixel 8a, 00RHF
LPGAI-ZA2DHF-E-PX8A	Linea Pro G AI Enterprise with Zebra Advanced Range 2D SE, HF RFID, NFC, Extended Battery, for Google Pixel 8a, 00RZF
LPGAI-ZS2DHF-E-PX8A	Linea Pro G AI Enterprise with Zebra Standard Range 2D SE, HF RFID, NFC, Extended Battery, for Google Pixel 8a, 00RZF

AI Wedge

AIWedge is a versatile Android app that captures barcode scans and images, transmitting them to target applications via keystrokes or intents. It allows users to configure settings, customize barcode processing through JavaScript, and manage the app through QR codes, intents, or mobile device management (MDM) solutions. Key features include a barcode service, multiple output modes (keyboard and intent), and advanced configuration options like MagicFilters for enhanced data handling

This application is necessary to use the LPG.

Quick start guide: <https://infiniteperipherals.github.io/AIWedge-Android/>

Google Play Store: To be released.

The application can be used without any integration via keyboard output mode. For those that need to add support in their application, intent output mode can be used.

AIWedge sample project: <https://github.com/InfinitePeripherals/AIWedge-Android>



Product Description



Fig. 1

1. Barcode Scan Engine	7. Volume Up/Down button of Google Pixel 8a
2. External Charge and Data Contacts	8. Battery level status LED indicators
3. USB type-C Port	9. USB Type C Plug
4. Left and Right scan buttons	10. Top Cover
5. Left and Right programmable buttons	11. Linea battery lock/unlock mechanism
6. Power button of Google Pixel 8a	12. Battery
	13. NFC Reader/Writer



Technical Specifications

Microcontroller	ARM Cortex® M4 Microcontroller
Keyboard and Buttons	• Two Scan buttons • Two programmable buttons
Contactless Card Reader (optional)	• NFC-A/ISO 14443 Type-A • NFC-B/ISO 14443 Type-B • NFC-F/Felica • NFC-V/ISO 15693
2D Barcode Reader	• ZEBRA SE4770-IM100R* - 1280 x 800 pixels (optional) • ZEBRA SE5500 - 2688 x 1520 pixels (optional) • HONEYWELL C2105 - 2D CAMERA / 5 Mpx 2592 x 1944 pixels (optional)
Supported 1D and 2D Symbology*	• 1D: All major 1D, Digimarc • 2D: PDF417, MicroPDF417, Datamatrix, QR Code, Micro QR Code, Aztec, Composite, TLC-39, MaxiCode, Dotcode, Grid Matrix • Postal: US PostNet, US Planet, UK Postal, Australian Postal, Japan Postal, Dutch Postal (KIX), Mailmark
Connectivity	• USB type-C connectors – plug and receptacle • micro SAM • Pass-through sync through USB type-C • USB peripheral support (5V, 0.5A) • USB 2.0 / USB 3.2 (gen 1.1) communication • USB device support through dock connector
Device Compatibility	• Google Pixel 8a
Audio Features	• Electro-Magnetic Buzzer
Power Supply	• DC 5/9 V through USB – PD 18W/25W Charger • DC 5 V through contact pins – 12W
Battery	• Rechargeable Li-Ion Battery 3.7V/2500mAh or 3.7V/5000mAh • Precise battery management by Fuel Gauge microcontroller for remaining battery capacity
Certificates	• IP67, CE, FCC, CB
Dimension W x H x D, mm	• 190 x 88 x 29.7 - 2500mAh battery • 190 x 88 x 34 - 5000mAh battery
Weight, g	• 260 g - 2500mAh battery • 310 g - 5000mAh battery
Operational temperature range	-10 °C to +40 °C / 5 to 90% RH
Storage temperature range	-20 °C to +50 °C / 5 to 90% RH

* Specification can be change without any notice.



ATTACHING GOOGLE PIXEL 8A TO LINEA PRO G

To be able to install the Google Pixel 8a, the top cover (item 10) needs to be removed. As a precaution, prior to removing the top cover, security screws may be installed and need to be removed. Screws can be accessed from the back of the devices, see Fig 2. If screws are not installed then the top cover shall slide off and proceed with seating the Google Pixel 8a as shown in the following Figures.



Fig. 2

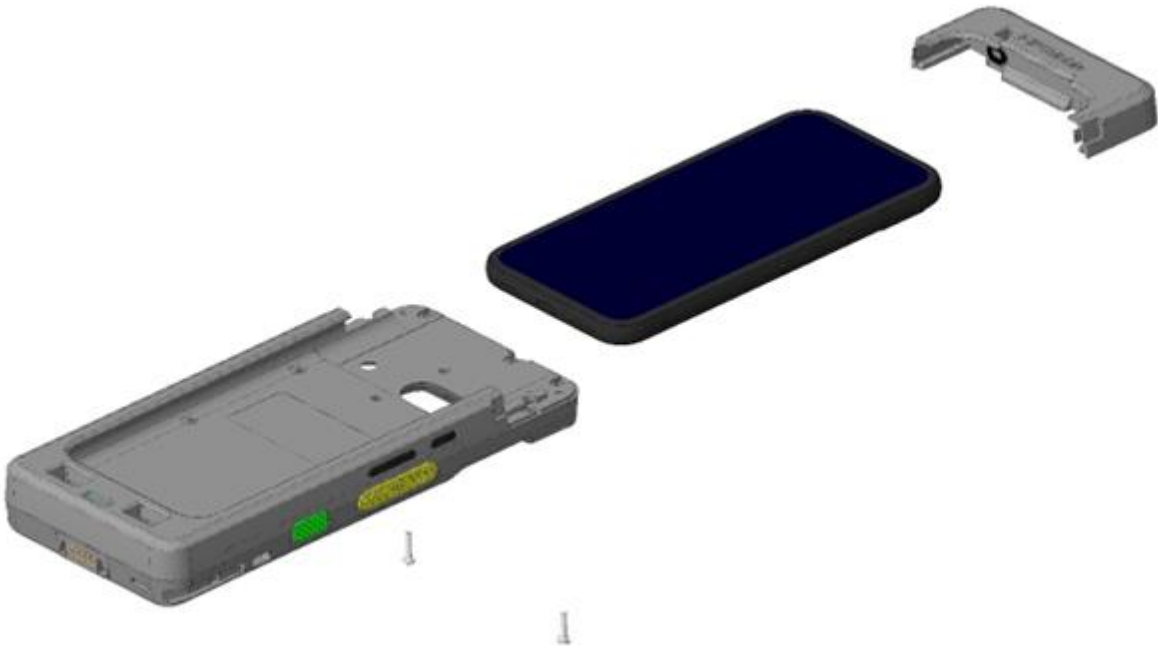


Fig. 3

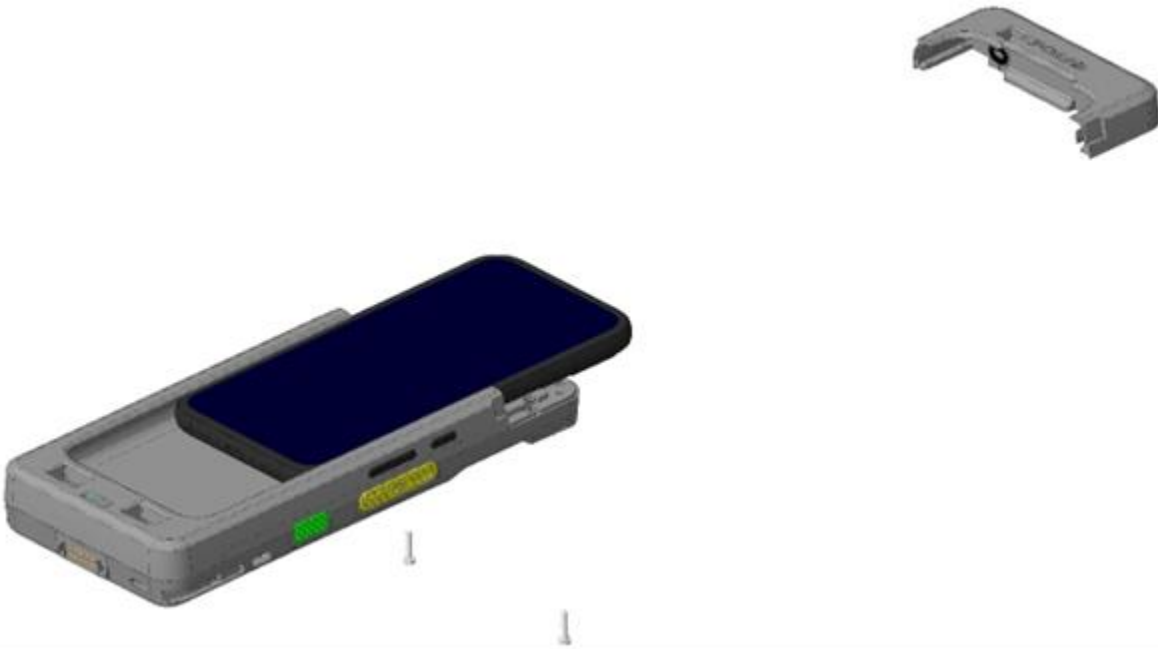


Fig. 4



Slide until the Google Pixel 8a and engage the USB C plug. The Google Pixel 8a shall be fully seated in the Linea Pro G.



Fig. 5

Place the back cover and hand tighten the two screws.



Fig. 6

The devices are ready to use.



Fig. 7

Verifying Battery Status, Charging LPG Battery and Google Pixel 8a

Linea Pro G uses a rechargeable Li-ion battery, and prior to first use of the battery and/or system which includes the Google Pixel 8a, it is highly recommend to fully charge the battery. Battery status can be determined in AI Wedge or by the LED indication status. SEE **Battery LED Indications** section.

The Linea Pro G battery can be charged using a PD power adapter with the supplied USB-C cable and plug the cable into respective ports of the Linea Pro G and the PD power adapter. In conjunction, when the Google Pixel 8a is installed, the same methodologies can be used to charge it.

NOTED: PD power adapters are not provided. It is recommended that an 18W/1.3A or a higher rated PD power adapter be used to properly charge the Linea Pro G Battery and the Google Pixel 8a.

Alternatively, when the Linea Pro G is placed on an IPC Mobile charging station, the LPG battery and Google Pixel 8a are able to charge. Available options are:

- IPC Mobile 5 bay charging station
- IPC Mobile 1 bay charging station (25W; 18W)
- IPC Mobile 5 bay combo charging station
 - 4 Linea Pro G batteries
 - 4 Linea Pro G

The IPC Mobile 5 bay combo charging station is configured for four (4) Linea Pro G Batteries and four (4) Linea Pro G devices. This permits standby batteries and devices to be charged in a single station.

Battery Charge Duration From 0% Charge	
2500mAh P/N: LPG-HHS505076LP1P	Normal Charge (18W): 2hr, 30min
	Fast Charge (25W): 1hr, 37min
5000mAh P/N: LPG-HHS505076LP2P	Normal Charge (18W): 5hr
	Fast Charge (25W): 2hr, 37min
Operating Conditions for Charging	0 deg to 40 deg C.



Battery LED indications



FIG. 8: LED indicators for battery percentage level

Battery LED Indicators	Status
	Battery level is between 1-25%
	Battery level is between 26-50%
	Battery level is between 51-75%
	Battery level is between 76-100%



Replacing the LPG Battery

The LPG battery is rechargeable and replaceable. To replace the battery, follow the necessary steps and only use the IPC Mobile certified batteries.

IPC Mobile Batteries	
Part Number	Capacity
LPG-HHS505076LP1P	2500mAh
LPG-HHS505076LP2P	5000mAh

First, slide the lock mechanism to the right to unlock the battery. There is a “lock” and “unlock” icon near the latch to indicate position of the latch.



Fig. 9

Engage the finger tabs on the battery to assist with tilting and lifting the battery out of the battery.



Fig. 10

Insert the intended battery by orientating the charge contacts on the battery to the battery charge contact springs. Using the battery's alignment tabs, as shown in Fig 11, hinge the battery and place the battery into the battery well.



Fig. 11



After ensuring the orientation of the battery and its seating into the well, press the battery down and slide the lock to the left to lock the battery in position.



Fig. 12

Transferring data between Google Pixel 8a and PC

Linea Pro G supports sync function when a USB-C cable is plugged into the LPG USB-C receptacle and intended device. A USB-C 2.0 male/male cable is provided for this function.

Sync can be enable or disabled by setting on the phone menu. If "File transfer ", was disabled, when USB cable is plugged to Linea Pro G will be charge only.



Programmable Buttons

By default, the yellow scan buttons on either side of the LPG serve two functionalities: to scan barcodes and to turn on the unit and AI Wedge.

1. To turn on the LPG, press and hold one of the scan buttons until you hear a beep. This indicates the unit is awake.
2. To activate normal barcode scanning, press either scan button.

Note

To preserve the charge on the internal battery pack, the LPG turns off automatically if idling for an extended period of time. Default values that may be changed via the SDK or by contacting Support:

Idle time :5400s

Disconnected: 30s

By default, AI Wedge pre-programs the green buttons to behave as push to talk buttons on either side of the LPG.

The following functions occur when the mobile application is running:

1. Push to talk buttons are engaged, voice transmission occurs.
2. Push to talk buttons are not engaged, voice reception occurs.

Scanning Barcodes

Linea Pro G can scan 1D and 2D barcodes. To scan barcode first, activate the scanner (by pressing and holding the scan button). Then position the scanning engine to the center of the barcode by aiming and the illumination box is over the outer edges of the barcode, as shown on the picture below. Slowly pull back or forward the unit, while increasing or decrease the distance between the barcode and the scanning head, until the barcode has been read by the scanner. Barcode data will have shown on the use application for Andorid.

Linea Pro G support different types of scanning modes:

- Single Scan
- Multi Scan
- Motion Detect
- Single scan on button release
- Multi Scan without duplicates
- Video scan

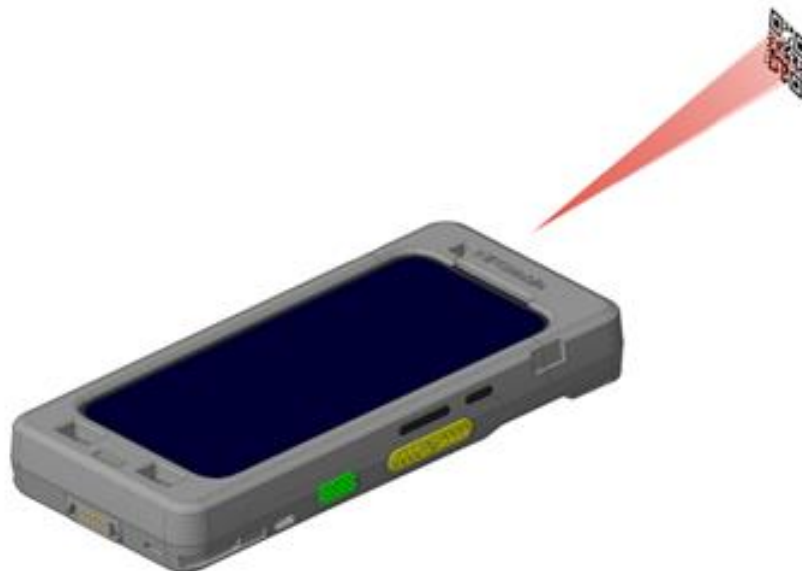


Fig. 13



Contactless Card Readers

The Linea Pro G has a contactless card reader. The contactless card reader is located at the top of the device as shown in Figure 19. Contactless card, tag, or any NFC broadcasting product must be placed over the RF ID logo to permit the Linea Pro G to read its broadcasting information.



Fig. 14



Troubleshooting

Installing the Troubleshooting Application

Start by locating and downloading the IPCSupport troubleshooting application from the Google App Store:
To be released.
Once installed, open the app, and then follow the troubleshooting steps.

Starting up the Linea Pro G

Press and hold either of the scan buttons on your device for approximately 3 seconds.
The device emits a beep, which indicates that the device is now active.

Establishing Connection to Linea Pro G

Once activated, the Google Pixel 8a will establish a connection with Linea Pro G. The device information such as battery percentage, serial number, and other relevant data displays on the screen.
Refer to the user guide inside the application for additional steps.
If the connection fails, contact Support, <https://ipcmobile.com/support>

Note

Troubleshooting Application can test all functionality and diagnose any Issues on the Linea Pro G.



Care and Maintenance

Follow these guidelines for care and maintenance of the LINEA PRO G:

- Keep the scanner limited to precipitation, humidity, and liquids contain minerals that will corrode the electronic circuits.
- Do not use or store the LINEA PRO G in a dusty or dirty area.
- Do not drop the LINEA PRO G.
- Do not charge the LINEA PRO G, if the USB connector is wet. The USB connector must be clean and dry before charging the unit.
- Keep the device and battery away from excessive heat and direct sunlight.
- Do not place the device or battery on or in any heating devices, such as microwave ovens, stoves, or radiators.
- Dispose of the battery and any accessories according to local regulations. Do not disposed of these electronic devices in normal household waste. Improper disposal may lead to fire, explosion, or other hazards.
- Do not use, store, or transport the device where flammables or explosives are stored, such as in a gas station, oil depot, or chemical plant. Using the LINEA PRO G in these environments increases the risk of explosion or fire.
- Do not open the LINEA PRO G as this will void your warranty.
- For assistance, contact IPCMobile Support <https://ipcmobile.com/technical-services>

Warranty

IPCMobile does not warrant, and is not responsible for, any damage to the Linea Pro G Barcode Scanner ("Product") or the assembled Google device as a result of liquid or solid particle intrusion into the Product, or damaged caused by dropping the Product with the assembled Google device. If a material or workmanship defect arises with regard to any IPCMobile product, and a valid claim is received within the Warranty Period, IPCMobile (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. 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.

Product Returns

To gain access to our service center, click the link in step 1 to create an account or open an existing account. In our online support center, you'll be able to download files, open a support ticket, manage your return merchandise authorizations (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.
4. Note the assigned RMA number and write it clearly on your shipping carton.
5. Ship your equipment to us using the address provided on the Support Ticket.



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