

ingenico
GROUP

Lane/8000

User Guide



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● SEAMLESS PAYMENT

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1_Introduction

Thank you for choosing an Ingenico payment terminal.

We recommend you to read carefully this user guide: it gives you the necessary information about safety precautions, unpacking, installation and maintenance of your terminal.

WARRANTY / SECURITY



To benefit from the guarantee-related product, and to respect the security, we ask you to use only the power supply delivered in box with the product, entrusting maintenance operations only to an authorized person. Failure to comply with these instructions will void the manufacturer's responsibility.



This symbol indicates an important Warning.



This symbol indicates a piece of advice.

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2_Uncartoning

According to the model, the following items are included in the packaging box (including optional accessories) :

► **The terminal**



The box may also include the following items depending on your working configuration :

- An installation guide
- Cable (specific to connectivity requirements)
- Power supply unit and power cord
- A stylus
- Modules
- Screws to fix the main cable and the module



CAUTION

The power supply unit provided with your equipment is specially designed for it. Do not use any other power supply.



ADVICE

Keep the packaging. It must be re-used whenever the terminal is shipped.

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3_Recommendations

3_1 Safety

Power on/Power down - Emergency stop

To power on or power down the terminal, connect or disconnect the power supply from the electric outlet.

Power supply unit



CAUTION

Only use the power supply AC/DC provided with Lane/8000 or the power provided by a cash register limited power source (LPS).



CAUTION

Lithium battery cell

The terminal is fitted with a lithium battery cell which is not accessible to the user. Only a qualified technician is authorized to open the unit and change this component.

Risk of explosion if the battery is replaced by an incorrect type. Dispose of used battery according to the instructions.

Electrical power supply network

The electrical outlet must meet the following criteria:

- Must be installed near the equipment and easily accessible;
- Must meet standards and regulations in the country of use.

Explosion areas

Certain regulations restrict the use of radio equipment in chemical plants, fuel depots and any site where blasting is carried out. You are urged to comply with these regulations. The terminal shall be protected by a specially fitted and certified cover enabling use in proximity to a fuel pump.

Connection of headset on audio jack

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CAUTION

An excessive acoustic pressure of headset can involve deafness!

**WARNING**

We recommend to the customer to provide guidance to the cardholder as to avoid having his card close to any magnets on the device since the card may be damaged. There is one magnet in the stylus and another in its holder.

3_2 Security of your terminal (tampering attempt detection)

Your device fulfils current applicable PCI PTS security requirements. Upon receipt of your terminal you should check for signs of tampering of the equipment. It is strongly advised that these checks are performed regularly after receipt. You should check, for example: that the keypad is firmly in place; that there is no evidence of unusual wires that have been connected to any ports on your terminal or associated equipment, the chip card reader or any other part of your terminal. Such checks would provide warning of any unauthorised modifications to your terminal, and other suspicious behaviour of individuals that have access to your terminal.

Your terminal detects any "tampered state". In this state the terminal will repeatedly flash the message "Alert Irruption!" and further use of the terminal will not be possible. If you observe the "Alert Irruption!" message, you should contact the terminal helpdesk immediately.

You are strongly advised to ensure that privileged access to your terminal is only granted to staff that have been independently verified as being trustworthy.

The terminal must never be put in or left at a location where it could be stolen or replaced by another device.
as being trustworthy.

The terminal must never be put in or left at a location where it could be stolen or replaced by another device.



WARNING

If the warranty label is torn or removed, the warranty will be void.



CAUTION

Positioning of the Lane/8000 on check stand must be in such a way to make cardholder PIN (Personal Identification Number) spying infeasible.

Installing device on an adjustable stand must be in such a way that consumers can swivel the terminal sideways and/or tilt it forwards/backwards to a position that makes visual observation of the PIN-entry process difficult.

Positioning of in-store security cameras such that the PIN-entry keypad is not visible. NEVER ask the customer to divulge their PIN Code. Customers should be advised to ensure that they are not being overlooked when entering their PIN Code.



CAUTION

This equipment may not be modified, altered or changed in any way without signed written permission from Ingenico

3_3 Main Characteristics

3_3_1 Terminal

Weight (Poids, Gewicht)	796g
Size (dimensions, Maße)	200 (L) x 205,5 (W) x 44 (H) mm
Display	7" backlit LCD, WVGA (800 x 480 pixels)
Touchscreen	Capacitive

Operating conditions

Ambient temperature	from 0°C to +45°C
Max relative humidity	85% RH non-condensing at +40°C
Max altitude	2000 m

Storage conditions

Storage temperature	-20°C, +55°C
Max relative humidity	85% at +55°C

3_3_2 Power characteristics

Power supply units

The Lane/8000 can be powered by several ways :

- An external power supply unit
- By POE (Power over Ethernet)
- By USB (12VDC)

POE (Power over Ethernet)

The power sourcing equipment must be compliant with IEEE802.3af standard, class 0 which means 12.95W max. POE implementation in the Lane/7000 can support both mode A and mode B.

WARNING



The power supply unit provided with your equipment is specially designed for this Ingenico terminal. Do not use any other power supply. The use of a power supply with apparently similar voltage/current characteristics may damage your terminal.

AVERTISSEMENT



Dans le cas où vous choisiriez d'utiliser un bloc alimentation, assurez-vous de n'utiliser que le bloc d'alimentation qui a été conçu spécialement pour votre terminal. N'utilisez pas d'autre bloc d'alimentation. L'emploi d'un bloc d'alimentation présentant des caractéristiques apparemment similaires de tension/intensité peut endommager votre terminal.

Lane/8000 Power values in different modes

Lane/8000 works at voltages between 8VDC and 12VDC.

Mode	Lane/8000 Power (W)
Idle mode - backlight OFF	3,1
Idle mode - backlight ON (50%)	3,5
Typical – SCR & CLESS - Backlight ON (50%)	8,8
Maximum	16

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3_3_3 Terminal Connectivity

USB	High speed USB Device in the single connector
Ethernet	10/100 Base T Ethernet is available on the Lane/5000. It is recommended to use TCP Protocol
RS232	It is a 2 wire interface on the Lane/5000 (Rx/Tx). It can run up to 115200bps

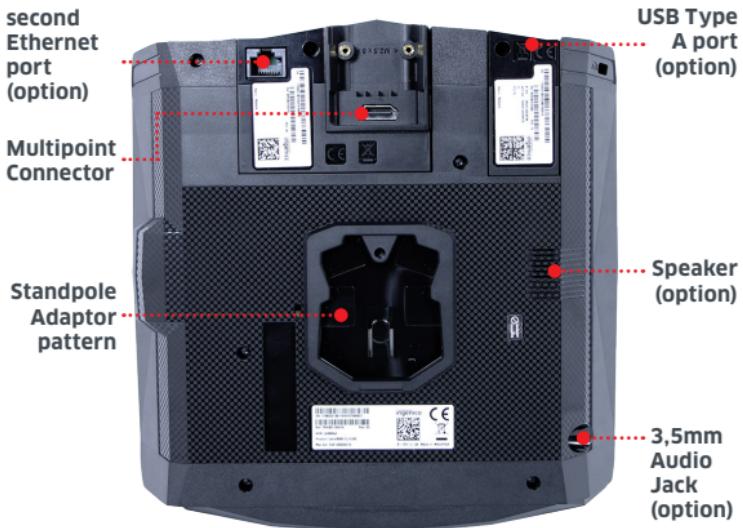
3_3_4 WLAN (2.4 GHz / 5 GHz)

Standard	802.11 a/b/g/n
Frequency band 2.4 GHz	DTS band 2400 MHz to 2483.5 MHz
Type of modulation	BPSK, QPSK, 16 – QAM, 64 – QAM
Number of channels	13 (20 MHz BW) / 9 (40 MHz BW)
Frequency band 5 GHz	5150 MHz to 5250 MHz; 5250 MHz to 5350 MHz; 5470 MHz to 5725 MHz; 5725 MHz to 5850 MHz
Type of modulation	(D)BPSK, (D)QPSK, 16 – QAM, 64 – QAM; 256 – QAM
Number of channels	19 (20 MHz BW) / 9 (40 MHz BW)
Max output power	< 20dBm

3_3_5 BLUETOOTH

Standard	Bluetooth® + EDR
Frequency band	ISM band 2400 MHz to 2483.5 MHz
Type of modulation	GFSK, Pi/4 QPSK, 8 DPSK
Number of channels	79 (1 MHz BW)
Max output power	<4 dBm

3_4 Functional description



4_Installation & Connections

4_1 Positionning the terminal

Place the terminal with an easy access to an electrical outlet. Place the terminal away from any heat source and protected from dust, vibrations and electromagnetic radiations (away from video terminals, PC, anti-shoplifting barriers ...). The terminal is exclusively made for indoor use.

The Lane/8000 device may be mounted on a flat surface, wall, or customer stand.



CAUTION

Do not place the Lane/8000 device on a PC monitor, adjacent to an electronically active security tag deactivation system, or near other sources of magnetic fields.

The Lane/8000 device must be at least 30 centimeters (12 inches) away from an electronically active type of security tag deactivation pad.

- An electronically active system sends out a powerful and potentially disruptive signal to deactivate the security tag. If the Lane/8000 device is placed too close to the system's pad, or placed above the pad, the product may not work properly.
- A passive system is a permanent magnet type that does not send out a signal. This type should not affect the Lane/8000 device.

4_2 Inserting SAM (Secure access module) and Micro SD

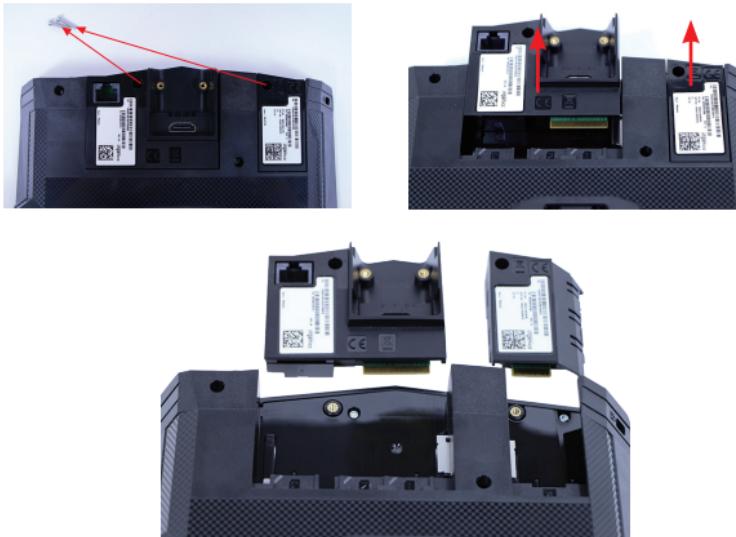


CAUTION

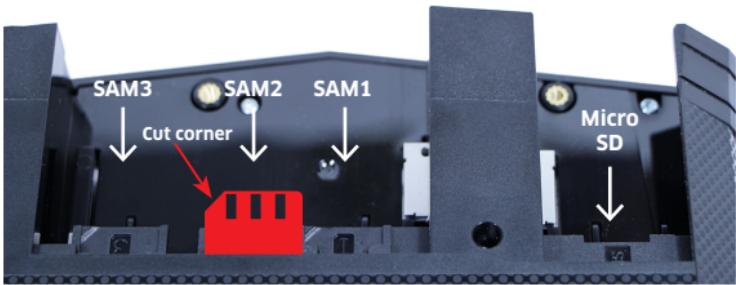
Before starting, switch off the terminal by disconnecting the power supply.

Perform the following operations :

- Unscrew the modules and remove them both
- Access to SAM and Micro SD is now possible.



- Insert the SAM Card into the slot marked (1), (2) or (3). Take care to ensure that the SAM Card is inserted in the correct manner. The cut corner must be positioned as indicated on the figure below.



- Slide back the module and screw them tight



CAUTION

Do not use any tools when installing or removing the SAM Card or Micro SD.



WARNING

During this operation, it is necessary to be in an ESD protected environment. As this is not very easy, it is recommended to make this operation using ESD shoes for example.

4_3 Connecting the terminal to the host



CAUTION

Connecting must be made when power supply unit is not plugged in the cable.



- Flip the terminal. There is one port on the back for power and communications.
- Connect the cable on the terminal.
- Connect the other end to the power supply unit and a Host (PC / cash register...).
- Plug the power supply into the mains.



WARNING

The main port at the back must not be used to connect an HDMI video cable. Only connect cables provided by Ingenico.

Note : 2 screws can be added (M2.5 x 8) to hold more firmly the cable.

The terminal can be connected to the host by several ways, with optional cables :

- High speed USB device
- Ethernet
- RS232

Most of the cables used with iSC and iPP ranges are compatible with the Lane/8000.

We advise to check with your reseller their compatibility if you plan to replace an iSC480 / ISC250 / ISC Touch 250 by a Lane/8000.

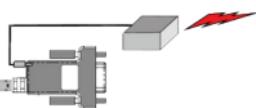
Following are some examples of accessories that can be used to connect the Lane/8000 (ACC-LANE8000). This list is not exhaustive. Please contact your reseller for more information.

- **RS232 cable (optional)**

References: 296114811AB (length 2m)
296114928AB (length 5m)



Power supply unit



RS232 connector

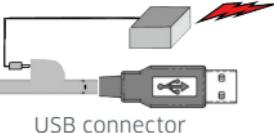
- **USB cable (optional)**

References: 296111170AD (length 2m)
296114303AD (length 4m)

Connector for terminal



Power supply unit



- **USB powered 12V cable (optional)**

Connector for terminal References: 296178419AB (length 2m)



Special USB shielded cable

12 V

- **Ethernet cable (optional)**

Reference : 296114829AD (length 2m)
296114829AD (length 2m)

Connector for terminal



Power supply unit



Ethernet connector

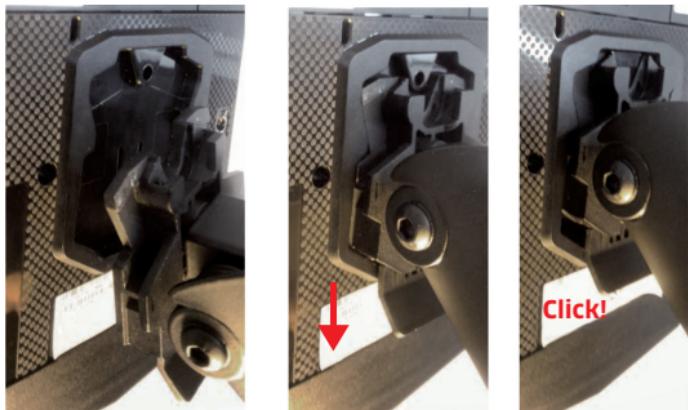
4_4 Setting the Lane/8000 on the stand pole adaptor

Install the terminal on a flat surface is not possible on the Lane/8000 as is. It is designed to be fitted on a standpole adaptor.

A specific pattern by Ingenico has been developed to fit the Lane/8000.



To fit the Lane/8000 to the stand pole adaptor, it only requires to slide down the Lane/8000 until a click sound:



The Lane/8000 is now ready to use :



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5_Daily use

5_1 Card reading

5_1_1 Swiping a card

- Insert the card manually in the reader, magnetic stripe facing the main body of the terminal, and slide the card from the rear to the front in a continuous motion for best results.



Swipe the card with constant speed, neither too slowly nor too fast, to maximize the reading efficiency and avoid annoying repetitions.



WARNING

We recommend to the customer to provide guidance to the cardholder as to avoid having his card close to any magnets on the device since the card may be damaged. There is one magnet in the stylus and another in its holder.

5_1_2 Inserting a smart card

- Chip cards should be inserted into your terminal as illustrated with the chip facing up and into the card reader.



5_1_3 Reading a contactless card

- Bring the card to the active zone above the contactless logo (at about 1cm).
- Keep the card close to the contactless logo during the transaction.

Your contactless terminal provides four contactless status lights located above the contactless logo.



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- When a contactless transaction is started the first (left hand) status light will be lit steadily; this indicates that the contactless is in use but a card is not being read.
- When a contactless card is presented to the contactless active zone during a transaction the second, third and fourth status lights will be lit in turn. The card read is successful when all four status lights are lit and a confirmation tone can be heard.



CAUTION

Do not stick any label onto the contactless active zone. It can decrease seriously contactless efficiency.



CAUTION

Avoid metallic parts around the contactless area.

5_2 Signature capture

- The signature capture is done with a stylus and a capacitive touchscreen



5_3 Audio

A speaker is available there is also an Audio jack. When a headset is plugged in, there is no more sound from the speaker.

- The audio jack is located next to the card reader.
- This option is not designed to play music, but to facilitate the use by blind people.
- The jack is 3.5mm, 32 ohms impedance.

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5_4 Camera (optional)



The Lane/8000 can be equipped with a module integrating a 5 megapixels autofocus camera.

Reference of the module : MODU/8005 WiFi/BT

*Note : The Lane/8000 can be equipped with a module without camera.
Reference of the module : MODU/7003 WiFi/BT*

6_Maintenance



CAUTION

Before making any operations of maintenance in the terminal, make sure that power supply is disconnected.

6_1 Cleaning of the terminal

First of all, unplug all the wires from the terminal.

Good rules for proper cleaning of the terminal are :

- Do not clean the electrical connections.
- Do not use in any case, solvents, detergents or abrasive products : those materials might damage the plastic or electrical contacts.
- Avoid exposing the terminal to the direct rays of the sun.
- Do not put anything into the slot of the smart card reader

6_2 Transport and storage

- Use the original packaging for storage or returning the unit.
- Disconnect all cables from the terminal during the transport.

6_3 Troubleshooting

Device is not working

- Make sure that the Lane/8000 connector is fully inserted into the back of the device.
- Restart the device.
- If you have another working Lane/8000 device, swap the devices to determine if the problem is with the device, cable, POS, or power supply.
- If the Lane/8000 device is directly connected to a host, reset the host by turning it off and back on again.

Magnetic Card Reader Does Not Work Properly

- When sliding the card through the reader, make sure that the magnetic stripe on the card is facing the Lane/8000 display screen (see Swiping a Magnetic Stripe Card).
- Swipe the card at a faster or middle steady speed.
- Inspect the magnetic stripe on the card to make sure it is not scratched or badly worn.
- Security tag deactivation system could disturb the magnetic card reader
- To determine if the problem is with the card :
 - a. If your host device has a magnetic stripe reader, try swiping the card there.
 - b. If you have another working Lane/8000 device, try swiping the card there.

Smart Card Reader Does Not Work Properly

- Make sure you have inserted correctly the smart card into the smart card reader and removed the card only after the transaction

MicroSD Card Reader Does Not Work Properly

- Make sure you have inserted correctly the microSD card into the card reader.
- Check that the card capacity is not higher than 32GB.

Touchscreen / Signature Capture Does Not Work Properly

- Make sure you use the correct power supply.
- Replace the stylus



WARNING

Changes or modifications to this device not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

7_Norms & Markings

7_1 Information to users in the United States and Canada

Federal Communication Commission Interference Statement 47 CFR Section 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 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.

This device complies with Industry Canada licence-exempt RSS standard(s). 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.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes : (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada.

To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

Radiofrequency radiation exposure Information :

This equipment complies with FCC and IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Information relative aux expositions radiofréquences :

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps. Ce transmetteur ne doit pas être placé au même endroit ou utilisé simultanément avec un autre transmetteur ou antenne.