

# ingenico

## Link/2500 LE Link/2500i LE

### User Guide



[www.ingenico.com](http://www.ingenico.com)

13-17 rue Pagès, 92150 Suresnes – France

Banks and Acquirers International Holding SAS / 814 767 216 RCS Nanterre

# Contents

|   |           |
|---|-----------|
| <b>1. Introduction</b>                        | <b>4</b>  |
| <b>2. Presentation</b>                        | <b>5</b>  |
| <b>2.1 Content of the box</b>                 | <b>5</b>  |
| <b>2.1.1 Terminal</b>                         | <b>5</b>  |
| <b>2.2 Overview</b>                           | <b>6</b>  |
| <b>2.3 Keyboard details and functionality</b> | <b>9</b>  |
| <b>2.4 Integration version (option)</b>       | <b>10</b> |
| <b>3. Use of the terminal</b>                 | <b>10</b> |
| <b>3.1 Switching off the terminal</b>         | <b>10</b> |
| <b>3.2 Reading card</b>                       | <b>11</b> |
| <b>4. Installation</b>                        | <b>12</b> |
| <b>4.1 Recommendations</b>                    | <b>12</b> |
| <b>4.2 USB Terminal connections</b>           | <b>13</b> |
| <b>4.2.1 USB type C</b>                       | <b>13</b> |
| <b>4.3 Opening trap door</b>                  | <b>13</b> |
| <b>4.4 SAMs &amp; SIMs</b>                    | <b>14</b> |

|  |           |
|--|-----------|
| <b>4.5 Battery</b>   | <b>15</b> |
| <b>4.5.1 Main characteristics</b>                            | <b>15</b> |
| <b>4.5.2 Installing the battery</b>                          | <b>15</b> |
| <b>4.5.3 Charging the battery</b>                            | <b>16</b> |
| <b>4.5.4 Changing the battery</b>                            | <b>17</b> |
| <b>5. Recommendations</b>                                    | <b>18</b> |
| <b>5.1 Safety</b>  | <b>18</b> |
| <b>5.2 Security of your terminal</b>                         | <b>20</b> |
| <b>6. Accessibility</b>                                      | <b>21</b> |
| <b>7. RED-DA (Radio Equipment Directive Delegated Act)</b>   | <b>21</b> |
| <b>8. Environment (WEEE, Batteries and Packaging</b>         | <b>22</b> |
| <b>9. FCC/IC Compliance</b>                                  | <b>23</b> |
| <b>9.1 Federal Communications Commission (FCC) Statement</b> | <b>23</b> |
| <b>9.2 ISED Statement</b>                                    | <b>24</b> |
| <b>10. Marking</b>   | <b>26</b> |
| <b>11. Troubleshooting</b>                                   | <b>27</b> |

# 1. Introduction

We hope that you will be fully satisfied with your new terminal Link 2500 (I LE). This terminal is available in different models. Please select by yourself in this documentation items related to your model.

Read this guide to understand and make the best use of your terminal. It presents you the necessary information about use, installation, maintenance, safety and security recommendations.

## WARRANTY / SECURITY



Use only the power supply included with the product to ensure best performance and safety. Maintenance should only be provided by Ingenico authorized technician. 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.

## 2.Presentation

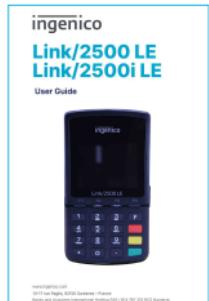
### 2.1 Content of the box

#### 2.1.1 Terminal

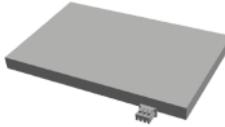
- Link/2500 LE terminal unit



- User guide



- A battery pack disconnected (except slim and Integration version)



#### ADVICE

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

## 2.2 Overview



Terminal unit



Integration Version

2"4 LCD Display  
(Touch panel in option)



**Compartment where are located (except slim and Integration version):**

- the battery pack
- the modules SAM1/SIM1 & SAM2/SIM2



|                          | Standard                                   | Slim version | Integration version | Touch version |
|--------------------------|--|--------------|---------------------|---------------|
| Weight                   | 155g                                       | 121g         | 128g                | 165g          |
| Dimensions (L x w x h)   | 129x70x17mm                                | 129x70x13mm  | 129x70x14mm         | 129x70x18,4mm |
| Electrical mains network | 100-240VAC / 50-60 Hz - Class II equipment |              |                     |               |
| Connections on terminal  | USB C connector                            |              |                     |               |

## 2.3 Keyboard details and functionality



Some keys can have other functions according to the applications that are in the terminal.



The functions key accesses the different application menus

The red key cancels the procedure in progress

The yellow key cancels the last character

The green key validates input selections and information. It is also used to switch on the terminal

## 2.4 Integration version (option)



The Link/2500 device could be equipped with a rear connector to be used with another device such as smart phone.

## 3. Use of the terminal

### 3.1 Switching off the terminal

If the battery is empty and the terminal in use is removed from its base, the terminal automatically shuts off.

It may also be switch off by pressing simultaneously  and  (yellow key) for one second.

In order to restart the terminal, press  on the keyboard.

## 3.2 Reading card

### Magnetic stripe card

The card can be read either from right to left or left to right, with the stripe facing the terminal. Use a regular movement in order to ensure a reliable card reading.



### Smart card

- Card reader: insert the card horizontally with the chip facing upwards and leave in position throughout the transaction.

### Contactless

- Bring the card firmly up to the active zone. Keep the card close to the reader during the transaction
- The 4 virtual LEDs are displayed during the transaction.

The terminal behavior for the cardholder may depend on :

- The terminal environment
- Local usage (language...)



## 4. Installation

### 4.1 Recommendation

#### Location

The terminal should be placed far from any very hot zones, protected from vibrations, dust, damp and electromagnetic radiation (computer screen, anti-theft barrier etc.).

#### Operating conditions (battery discharging)

|                       |                     |
|-----------------------|---------------------|
| Ambient temperature   | from -10°C to +50°C |
| Max relative humidity | 85% at +40°C        |

#### Battery charging conditions

|                     |                    |
|---------------------|--------------------|
| Ambient temperature | from +0°C to +40°C |
|---------------------|--------------------|

#### Storage conditions

|                       |                     |
|-----------------------|---------------------|
| Ambient temperature   | from -20°C to +55°C |
| Max relative humidity | 85% at +55°C        |

## 4.2 USB Terminal connections

### 4.2.1 USB type C

- There is an USB connector (USB type C) on the right side of the Wireless terminal (see below picture). This connector manages Host and Slave connexions.
- The terminal supports USB Keys with FAT16 or FAT32
- The USB Key has to be used with an USB adapter (refers to accessories section)



**USB type C**

Connector used for PC travel charger, USB Key, etc...

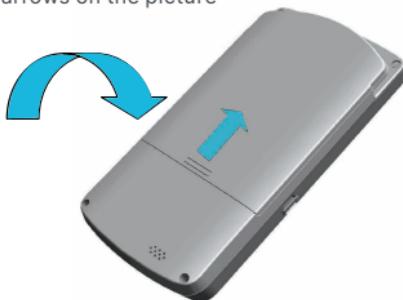
### 4.3 Opening trap door



#### CAUTION

Switch off the terminal before opening the trapdoor.

- Turn the terminal and unclip the trapdoor by pushing on the clip with as shown with the arrows on the picture

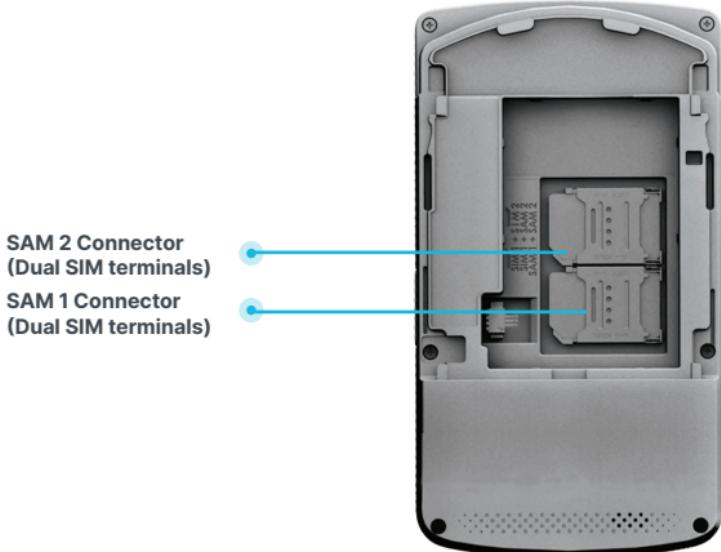


Copyright© 2024 Ingenico -  
Banks and Acquirers  
International Holding SAS  
All rights reserved

## 4.4 SAMs & SIMs

The connector modules security SAM/SIM is located inside the terminal, in a closed compartment. SAM and SIM location depend of the product. There is 3 possibilities : SIM1/SIM2 or SIM1/SAM2 or SAM1/SAM2.

- SAMs and SIMs are identified by the engraved marks on the lower housing
- When introducing a SAM/SIM in its slot, be sure to put the cut corner as indicated on the engraved marks



## 4.5 Battery

### 4.5.1 Main characteristics

| Characteristics   | Charge power supply 1.0A                       |
|---|--|
| Li-Ion 1200 mAh<br>Li-Ion 600 Ah (for Slim and integration version) | 80% capacity in 1h; full capacity in 1.5 hours |

\* The battery capacity depends on the model of terminal and its use

### 4.5.2 Installing the battery (except for Slim and Integration Version)



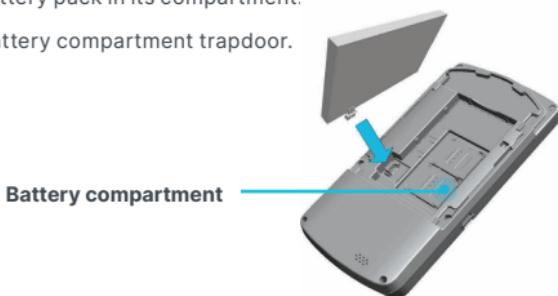
#### WARNING

Check that the terminal is not connected to the main electric network.

- Turn your terminal and unclip the battery trapdoor by pushing on the button as shown on the picture (for Dual magnetic head option see section 4\_3)
- Disengage the trapdoor
- Take the battery pack included in the box
- Locate the battery pack connector beside the battery compartment
- Plug the battery pack connector according to the connector locating system and (as shown on picture). Verify that it locks.



- Place the battery pack in its compartment.
- Close the battery compartment trapdoor.



#### 4.5.3 Charging the battery

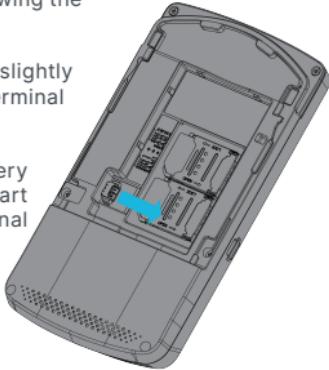
- When does the battery need to be charged?
  - / On initial start-up, charge the battery for 4 hours under the environmental conditions stated above
  - / When used with a terminal power supply : connect the power supply to USB C connector.
- How does the battery need to be charged?
  - / The environment in which the charge takes place influences battery lifetime and autonomy (number of transactions)  
The optimal conditions are as follows :
    - / Charging away from any external heat source (radiator, sun, enclosed area...)
    - / The optimal temperature is between +15°C and +25°C
- How can the battery be charged?
  - Using the terminal power supply
    - / Connect the terminal power supply unit to the terminal type C connector located on the right side of the terminal.
    - / Connect the power supply unit to the power supply mains network
    - / Check to see if the battery symbol is flashing or moving (=battery charging)

#### 4.5.4 Changing the battery (except Slim and Integration version)



It is imperative to use a battery authorized by Ingenico. There is danger of explosion if battery used is not approved by Ingenico.

- Turn it off by pressing simultaneously  and  (yellow key) for about one second
- Remove the battery trapdoor (see section 4.5.2 "Installing battery")
- Lift the battery and remove it from its compartment
- Carefully disconnect battery, following the instructions below.
- Extract the connector by pulling it slightly (arrow) to bring it away from the terminal housing.
- Inform the terminal that battery will be replaced (\*). Do not start the terminal or connecting terminal power supply without battery.
- Connect and install the new battery by following the instructions in section 4.5.2 "Installing battery"
- Close the battery trapdoor and charge the new battery. See section "Charging the Battery"
- In order to preserve the environment, dispose used battery in compliance with current country recycling legislation.



(\*)The terminal memorizes that there is no battery simply by powering up. It will then correctly perform-full recharge with the next battery.



The battery disconnection must be exceptional.  
Battery connector durability: up to 30 mating cycles.

# 5. Recommendations

## 5.1 Safety

### Powering down

Disconnect the Link/2500 LE power supply block adapter from the electrical mains network.

### Lithium cell, Lithium Button Battery

The Link/2500 LE is fitted with a lithium battery (except slim and Integration version) and a lithium cell button battery which are not accessible to the user. Only a qualified technician may be authorized to open the unit and change these components.

For Switzerland annex 2.15 of SR 814.81 applies for batteries.

#### WARNING



- When replacing the battery, use only a battery approved by Ingenico.
- Scrapping by heating, burning, punching or crushing the battery may cause explosion.
- Maintaining a battery in a very high environment temperature may cause explosion or leakage of flammable liquid or gas.
- A battery subject to extremely low air pressure may cause explosion or leakage of flammable liquid or gas.

### SIM1(SAM1)/SIM2(SAM2) readers' compartment

The trapdoor for battery, SIM1(SAM1)/SIM2(SAM2), readers located underneath the terminal, must be in place during the normal operation of the terminal. See sections «Removal of SAM1/SAM2/SIM, modules» as well as «Connecting the battery».

### On airplanes

Your handset must be switched off by removing the battery pack. Remove the battery from the terminal when on an airplane. Non-compliance with these safety rules may result in legal action and/or a ban on later access to cellular network services.

### 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.

## Electronic health appliances

Your handset is a radio transmitter which may interfere with health appliances, such as hearing aids, pacemaker, hospital equipment, etc. Your doctor or the equipment manufacturer will be able to provide you with appropriate advice.

## Frequency bands

|                   |  |
|-------------------|--|
| Frequencies       | <p><b>EGSM900/WCDMA900</b> : TX 880-915MHz; RX 925-960MHz</p> <p><b>DCS1800</b> : TX: 1710-1785MHz; RX: 1805-1880MHz</p> <p><b>WCDMA2100</b> : TX: 1920-1980MHz; RX 2110-2170MHz</p> <p><b>LTE FDD 1, 3, 5, 7, 8, 20, 28</b>: 703-748MHz, 832-862 MHz, 880-915MHz, 1710-1785MHz, 1920-1980 MHz, 2300-2400 MHz, 2496-2690 MHz, 2500-2570 MHz, 2570-2620 MHz</p> <p><b>Wi-Fi</b> : 2412-2472MHz, 5150-5250MHz, 5250-5350MHz, 5470-5725MHz, 5725-5850MHz</p> <p><b>BT</b> : 2402-2480 MHz;</p> <p><b>NFC</b> : 13.56MHz</p>   |
| RF-Output Power : | <p><b>EGSM900</b> : 32.18dBm(GMSK),27.33dBm(8PSK)</p> <p><b>DCS1800</b> : 29.01dBm(GMSK),26.26dBm(8PSK)</p> <p><b>WCDMA2100</b> : 22.58dBm</p> <p><b>WCDMA900</b> : 22.85dBm</p> <p><b>LTE FDD 1, 3, 5, 7, 8, 20, 28</b> : 22.9dbm</p> <p><b>Wi-Fi 2.4G Band</b> : 13.07dBm(802.11b),12.74Bm (802.11g), 12.79dBm(802.11n20), 12.90dBm(802.11n40);</p> <p><b>5G Band1</b> : 11.92dBm(802.11a), 12.23dBm(802.11n0),11.88dBm(802.11n40);</p> <p><b>5G Band2</b> : 10.96dBm(802.11a), 10.92dBm (802.11n20),11.45dBm(802.11n40);</p> <p><b>5G Band3</b> : 11.64dBm(802.11a), 11.60dBm(802.11n20),11.32dBm(802.11n40);</p> <p><b>BT3.0</b> : 1.75dBm</p> <p><b>NFC</b> : 19.29dB<math>\mu</math>A/m@3m ( EIRP/Conducted)</p> |

## 5.2 Security of your terminal

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.

### CAUTION



Positioning of the terminal on check stand must be in such a way to make cardholder PIN (Personal Identification Number) spying infeasible.  
Positioning of in-store security cameras such way 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.

## 6. Accessibility

The product has been designed and manufactured in accordance with the essential accessibility requirements set out in Directive (EU) 2019/882 of the European Parliament and of the Council of 17 April 2019, in particular:

- The user interface is perceivable, operable, understandable, and robust.
- The device supports use by individuals with sensory, motor, or cognitive impairments.

Accessibility has been assessed and tested according to the following harmonized standard: EN 301 549 : «Accessibility requirements for ICT products and services» in accordance with the provisions of the Directive (EU) 2019/882 coordination standards specified in Resolution C (2022) 6456.

The assessment remains valid as long as the hardware and software integration — including all relevant applications — continues to comply with the requirements set forth by the applicable accessibility directive. Any significant modifications to the system architecture, user interface, or compatibility with assistive technologies must be reassessed to ensure ongoing compliance.

Some models may need require an external accessory for audio assistance. Please contact Ingenico support for more information (<https://www.ingenico.com>).

## 7. RED-DA (Radio Equipment Directive Delegated Act)

The product has been designed and manufactured in accordance with the essential requirements of the RED DA (Radio Equipment Directive Delegated Act), as set out in Commission Delegated Regulation (EU) 2022/30 of 29 October 2021 supplementing Directive 2014/53/EU of the European Parliament and of the Council with regard to the application of the essential requirements referred to in Article 3(3), points (d), (e) and (f).

- Article 3.3 (d) : Network Protection
- Article 3.3 (e) : Data and Privacy Protection
- Article 3.3 (f) : Fraud Prevention

RED DA aspects have been assessed and tested in accordance with the harmonized standard EN 18031: «Common security requirements for radio equipment», ensuring alignment with the essential cybersecurity requirements of Directive 2014/53/EU. This applies to the relevant categories and classes of radio equipment as specified in Delegated Regulation (EU) 2022/30.

The assessment remains valid as long as the hardware and software integration — including all relevant applications — continues to comply with the requirements set forth by the applicable RED DA. Any additional software should follow RED DA requirements to remain EU compliant.

Please contact Ingenico support for more information (<https://www.ingenico.com>).

## 8. Environment (WEEE, Batteries and Packaging)

This product is labeled in accordance with European Directives 2012/19/UE concerning Waste Electrical and Electronic Equipment (WEEE) and 2006/66/EC concerning Batteries and Accumulators. Those provisions are requiring producers and manufacturers to become liable for take-back, treatment and recycling upon end of life of equipment and batteries.



The associated symbol means that WEEE and waste batteries must not be thrown away but collected separately and recycled.

Ingenico ensures that efficient collection and recycling schemes are set-up for WEEE and batteries according to the local regulation of your country. Please contact your retailers for more detailed information about the compliance solution in place for disposing of your old product and used batteries.

Packaging waste must also be collected separately to assure a proper disposal and recycling.

Please note that proper recycling of the electrical and electronic equipment and waste batteries will ensure safety of human health and environment.

## 9. FCC/ISED Compliance

### 9.1 Federal Communications Commission (FCC) Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the condition that this device does not cause harmful interference.

#### 15.21

**CAUTION :** This equipment may not be modified, altered, or changed in any way without signed written permission from "Ingenico Terminals". Unauthorized modification may void the equipment authorization from the FCC and will void the "Ingenico Terminals" warranty.

#### 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.

#### 15.19 (a) (3)

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 of the device.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment could be installed and operated with minimum distance of 0 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## 9.2 ISED Statement.

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, and
- 2) this device must accept any interference, including interference that may cause undesired operation of the device.

Under ISED regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by ISED. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically.

Le présent appareil est conforme aux CNR d'ISED 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 radio électrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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

This equipment complies with ISED radiation exposure limits set forth for an uncontrolled environment. This equipment could be installed and operated with minimum distance of 0 cm between the radiator and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Cet équipement est conforme aux limites d'exposition aux rayonnements ISED établies pour un environnement non contrôlé. Cet équipement peut-être installé et utilisé avec un minimum de 0 cm de distance entre la source de rayonnement et votre corps. Ce transmetteur ne doit pas être placé au même endroit où utilise simultanément avec un autre transmetteur ou antenne.

To reduce the potential harmful interference to co-channel mobile satellite systems, this device operating in the band 5150-5250 MHz is for indoor use only.

Afin de réduire le risque d'interférence nuisible aux systèmes par satellite mobiles co-canaux, cet appareil fonctionnant dans la bande 5150-5250 MHz est destiné à une utilisation en intérieur uniquement.

## 10. Marking



The CE marking is the manufacturer's declaration that the product meets the requirements of the applicable EC directives. The CE mark is a mandatory conformity marking for certain products sold within the European Economic Area (EEA).



Waste of Electrical and Electronic Equipment (WEEE) symbol indicates that when the end-user wishes to discard this product, it must be sent to separate collection facilities for recovery and recycling. By separating this product from other household-type waste, the volume of waste sent to incinerators or land-fills will be reduced and natural resources will thus be conserved.



Power charge symbol



USB symbol



This logo indicates that the product operates with a continuous voltage. This symbol is followed by the ratings (voltage and current for instance)



Mark indicating a power supply meets the level VI requirements.



Double insulated or class 2 electrical appliances are products that have been designed in a way so as not to require a safety connection to electrical earth (These products must NOT have a safety connection to Earth).



Indoor use symbol.



This logo indicates that the product operates with an alternative voltage. This symbol is followed by the ratings (voltage and current for instance).

# 11.Troubleshooting

The terminal does not turn on

- Check the battery (is it discharged, is it connected?)

*A full discharged battery can take long charging time to recover*

- Connect terminal to terminal power supply

Cards are not read

- Check that the magnetic card is swiped correctly (with magnetic band on terminal side).
- Swipe again the card with the magnetic stripe movement constant and rapid
- Verify that the magnetic strip is not damaged, grooved or cracked
- Make sure you have inserted correctly the smart card into the smart card reader and removed the card only after the transaction is performed.

# NOTES

# NOTES

# NOTES

"This Document is Copyright © 2022 by INGENICO Group. INGENICO retains full copyright ownership, rights and protection in all material contained in this document. The recipient can receive this document on the condition that he will keep the document confidential and will not use its contents in any form or by any means, except as agreed beforehand, without the prior written permission of INGENICO. Moreover, nobody is authorized to place this document at the disposal of any third party without the prior written permission of INGENICO. If such permission is granted, it will be subject to the condition that the recipient ensures that any other recipient of this document, or information contained therein, is held responsible to INGENICO for the confidentiality of that information.

Care has been taken to ensure that the content of this document is as accurate as possible. INGENICO however declines any responsibility for inaccurate, incomplete or outdated information. The contents of this document may change from time to time without prior notice, and do not create, specify, modify or replace any new or prior contractual obligations agreed upon in writing between INGENICO and the user.

INGENICO is not responsible for any use of this device, which would be non consistent with the present document.

All trademarks used in this document remain the property of their rightful owners."

## Your contact



[www.ingenico.com](http://www.ingenico.com)

13-17 rue Pagès, 92150 Suresnes – France

Banks and Acquirers International Holding SAS / 814 767 216 RCS Nanterre

Link 2500 LE - Link 2500i LE  
900055504 R11 000 01/0224